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ABSTRACT

This book presents nine packages of learning materials for trainers to use in teaching community health workers to carry out the nutrition element of their jobs. Lessons are intended to help health workers acquire skill in presenting to communities the principles and practice of good nutrition. Responding to the most common causes of poor nutrition in developing countries, each learning package follows a problem oriented approach, featuring questions and answers, checklists, charts, games, stories, tests, and exercises designed to make learning a participatory experience. Each package focuses on a single topic, concentrating on helping trainees learn how to recognize and correct the causes of such common problems as nutrient deficiencies, deficiency induced diseases, malnourishment, poor childhood growth, and diarrhoeal diseases. (JD)

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Joint WHO/UNICEF
Nutrition Support Programme

NUTRITION LEARNING PACKAGES

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By means of direct technical cooperation with its Member States, and by stimulating such cooperation among them, WHO promotes the development of comprehensive health services, the prevention and control of diseases, the improvement of environmental conditions, the development of health manpower, the coordination and development of biomedical and health services research, and the planning and implementation of health programmes.

These broad fields of endeavour encompass a wide variety of activities, such as developing systems of primary health care that reach the whole population of Member countries; promoting the health of mothers and children; combating malnutrition; controlling malaria and other communicable diseases including tuberculosis and leprosy; having achieved the eradication of smallpox, promoting mass immunization against a number of other preventable diseases; improving mental health; providing safe water supplies; and training health personnel of all categories.

Progress towards better health throughout the world also demands international cooperation in such matters as establishing international standards for biological substances, pesticides and pharmaceuticals; formulating environmental health criteria; recommending international nonproprietary names for drugs; administering the International Health Regulations; revising the International Classification of Diseases, Injuries, and Causes of Death; and collecting and disseminating health statistical information.

Further information on many aspects of WHO's work is presented in the Organization's publications.

Joint WHO/UNICEF
Nutrition Support Programme

Nutrition Learning Packages

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Preface

The Nutrition Learning Packages are for trainers to use in teaching community health workers to carry out the nutrition element of their jobs. They support the publication: *Guidelines for training community health workers in nutrition,* 2nd ed. (World Health Organization, 1986), which contains nine training modules giving the information on nutrition needed by community health workers. The training modules also contain guidance for trainers, and include sample exercises to be used with trainees.

The nine Nutrition Learning Packages complement these training modules. They review some nutrition information, but concentrate mainly on enabling trainers to help trainee community health workers develop the skills they need to teach nutrition in the community.

Each package contains a selection of materials, for example, information sheets, question-and-answer sheets, and ideas for role-plays and demonstrations. Each Nutrition Learning Package has a contents list where the materials are listed and the aims of the package clearly stated. Each package also contains suggestions for trainers on using the materials. The choice of materials in practice will depend on the tasks the trainees will need to be able to carry out in the community.

The term community health worker is used throughout the Nutrition Learning Packages, but the materials can be adapted and used for all types of community workers who deal with nutrition. They can also be adapted to be especially relevant for the local situation. Ways of doing this and of pretesting adapted materials are described on pages 20-21.

Acknowledgements

This publication has been made possible through the Joint WHO/UNICEF Nutrition Support Programme (JNSP). This Programme supports a number of coordinated activities in developing countries which form part of national nutrition programmes and which try to improve the nutritional status of children and mothers. These activities are within the health sector and related sectors such as agriculture, education, and community development. The Joint WHO/ UNICEF Nutrition Support Programme is funded by the Government of Italy.

The materials in this publication were selected and adapted by Joan Allen Peters, Director, School of Nutrition and Home Economics, Acadia University, Wolfville, Nova Scotia, Canada. The sources of the materials are listed on page vii. The Learning Packages have been pretested in several countries, including Bahrain, Burma, Ethiopia, Sudan, and the United Republic of Tanzania, and have been modified in the light of comments and suggestions from a number of people with long experience of training and education in nutrition and health.

The artwork was prepared by Janet Moore.

Sources of materials contained in the **Nutrition Learning Packages**

All these materials have been used with the permission of the organizations and individuals reponsible for their development.

The following are adapted from *Creating good health* by Ben Essex and George Fargo. Ciba-Geigy, Basel, 1982.

Nutrition Learning Package 1
  Introducing yourself to others

Nutrition Learning Package 8
  Rules of good communication
  Communications in the village

Nutrition Learning Package 9
  Working with others
  Choosing the problem to work on first
  Overcoming barriers

The following are adapted from *Helping health workers learn* by David Werner and Bill Bower, Hesperian Foundation, Palo Alto, CA 94302 USA, 1983.

Nutrition Learning Package 1
  Learning about the community
  Looking at community leadership

Nutrition Learning Package 2
  Why do we weigh babies?
  Learning to use growth charts
  Learning to understand growth charts

Nutrition Learning Package 8
  Ideas and methods for trainers teaching nutrition

Nutrition Learning Package 9
  Solving nutrition problems in the community

The following are adapted from *Bridging the gap*, Save the Children, 54 Wilton Road, Westport, CT 06880, USA, 1982.

Nutrition Learning Package 2
  Weighing children

Nutrition Learning Package 5
  Food habits chart

Nutrition Learning Package 6
  Community nutrition graph

Nutrition Learning Package 8
  Priority messages
  Pretesting

Nutrition Learning Package 9
  Discussion-starter

The following are adapted from *Finding the causes of child malnutrition*, by Judith and Richard Brown, Task Force on World Hunger, Atlanta, GA 30308, USA, 1983.

Nutrition Learning Package 1
  Looking at different food problems and their causes

Nutrition Learning Package 2
  The arm tape

The following are adapted from *Healthy pregnancy – feeding and caring for children*, Medex Primary Health Care Series, No. 33, John A. Burns School of Medicine, University of Hawaii, 1983.

Nutrition Learning Package 2
  When to use an arm tape

Nutrition Learning Package 3
  Breast-feeding questionnaire

Nutrition Learning Package 4
  Feeding a young baby

Nutrition Learning Package 5
  Good care begins before a baby is born

Nutrition Learning Package 6
  How can you tell whether a child is becoming weak and thin?
  Why do children become weak and thin?
  Making sure a child does not become weak and thin

The following is adapted from *A traditional birth attendant's training kit,* World Health Organization, Geneva, 1982.

Nutrition Learning Package 2
  How to make an arm tape

The following are adapted from *Breastfeed your baby,* a multimedia teaching kit, Caribbean Food and Nutrition Institute, Jamaica, 1979.

Nutrition Learning Package 3
  Messages for mothers
  Suggestions for group activities on breast-feeding
  Questions to help get group discussion started

The following is adapted from *Nutrition handbook for community workers,* Caribbean Food and Nutrition Institute, Jamaica, 1982.

Nutrition Learning Package 5
  Nutrition during pregnancy and breast-feeding
  How to identify undernourished pregnant women

The following is adapted from *A guide to feeding the weaning age group in the Caribbean,* Caribbean Food and Nutrition Institute, Jamaica, 1982.

Nutrition Learning Package 4
  Planning meals using the multi-mix principle
  Using the multi-mix principle for weaning
  Making and storing safe weaning foods

The following is adapted from *Rural home techniques, food preservation series,* Food and Agriculture Organization of the United Nations, Rome, 1975.

Nutrition Learning Package 4
  Some ways to store foods to keep them cool and clean

The following are adapted from *Introduction to training: clean water and clean community – prevention and care of diarrhoea,* Medex Primary Health Care Series, No. 32, John A. Burns School of Medicine, University of Hawaii, 1982.

Nutrition Learning Package 7
  What is diarrhoea and what causes it?
  Why is diarrhoea dangerous?

The following are taken from materials prepared by the Diarrhoeal Diseases Control Programme, World Health Organization, Geneva, 1980.

Nutrition Learning Package 7
  How can a community health worker prevent diarrhoea and other infections?
  Care and treatment of children who have diarrhoea
  Nutrition and infections

How to use the Nutrition Learning Packages:

A guide for trainers

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The learning package approach

The materials in the Nutrition Learning Packages are designed to involve trainees actively in their own learning. Self-tests, role-plays, discussions and exercises require trainees to think, discover, discuss and solve problems, rather than to learn facts by memory. This way of learning is called participatory learning. It has been found more effective than just reading or listening to lectures.

The trainees are expected to do some of their learning in a local community. Community-based training helps trainees learn with, and from, the community. They learn to work with people, instead of doing things for people.

This way of training may be new to some trainers and teachers. If it is new to you this *Guide for trainers* will help you use the participatory approach. Another effective way to learn this method of training would be through a workshop based on *Guidelines for training community health workers in nutrition* and these Nutrition Learning Packages. We hope many countries will choose to introduce the Nutrition Learning Packages through a special workshop for trainers.

Your role as a trainer of community health workers

The Nutrition Learning Packages contain many learning activities in which you, the trainer, and the trainees work together to learn to how to carry out the tasks of the community health worker. It may not be possible in the time you have been given to include all of these tasks in your training programme. So how do you decide what to include? The answer is not to choose the topics you like to teach, or think would be interesting, but to choose topics based on the tasks community health workers must be able to undertake in the community.

What do trainees need to know?[1]

As a trainer, you must decide what nutrition information, skills and attitudes community health workers will need to perform their tasks well. You will have to cover the most important information, skills and attitudes in the first training programme, and include the rest in follow-up training session, or regular in-service training.

You can make a list of the information, skills and attitudes community health workers *must* learn, and another list of those that are *useful* to learn. After each training session you should find out whether the trainees have learned this important information. Some of the self-tests in the Nutrition Learning Packages can easily be adapted and used to help you find out what the community health workers have learned.

Community health workers may need a lot of time and practice to develop the skills they must learn. Your training programme must give them the opportunity to start developing these skills. Some of the activities outlined in the Nutrition Learning Packages will help you provide these opportunities for community health worker trainees to practise certain skills in the community. You can evaluate their learning of these skills through observation. Examples of checklists for evaluating skills through observation are given on pages 14-16.

Attitudes are perhaps the hardest to teach and to evaluate or test. Community health workers often learn these best and most easily through watching you, and other trainers, as you teach and work with them, and with people from the community. Some of the role-playing exercises in the Nutrition Learning Packages may help you, and the trainees, examine your attitudes to health, nutrition and community work. An example of a checklist to test or evaluate trainees' attitudes to their work is given on page 18.

How do people learn?

Here are some things we know about learning:

- People learn for themselves. No one can do it for them. Learning takes place inside each person's head.
- People must want to learn. They will not learn if they do not want to.
- People need to try out what they learn. They need to correct their mistakes and see if they are making progress.
- People need to practise ideas as well as skills. For example, if you hear an idea only once, and do not think of it again, it is unlikely that you will remember it.
- People learn and remember things that are interesting, pleasant or exciting, more than things that are boring and unpleasant.
- People learn more easily if what they are learning is organized, logical, and practical. They learn more easily if new things are related to things they already know.
- People learn better if they participate and are active in their learning.
- People need to know what it is they are trying to learn. They need clear objectives.

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[1] You will find more information on deciding what information to include in training in Chapter 2, *Teaching for better learning*, of *Guidelines for training community health workers in nutrition*, 2nd ed. World Health Organization, Geneva, 1986.

How can you help people learn?

We have seen how people learn. How can you as a trainer help trainees to learn? You can:

- Help motivate trainees. Can you give them good reasons for wanting to learn?
- Help trainees to make sense of what they are learning. Can you show them how it relates to what they will do in the community?
- Tell them how they are getting on. Can you evaluate their progress, encourage them, and correct their mistakes?
- Give them plenty of practice. Do they have chances to repeat what they learn?
- Try to make the learning situation interesting and pleasant. Are some things exciting to them?
- Organize what is to be learned well. Do trainees find the training logical and easy?
- Arrange for plenty of participation and involvement. Does the group take part in activities such as role-playing and discussions?
- Help trainees to see clearly what they are trying to learn. Do they know what they are expected to learn for their jobs as community health workers?

Providing a good learning experience for trainees

What must you as a trainer do to provide a training experience that helps trainees to learn? You must:

1. Organize the lessons or sessions.
2. Choose the learning methods.
3. Direct discussions.
4. Reinforce learning.
5. Evaluate the trainees' learning.
6. Evaluate your performance as a trainer.

1. Organizing the lessons or training sessions

- To create a good learning atmosphere be friendly and interested in what trainees say. Listen more than you talk. Arrange the seats in a circle to help discussion. This is better than the classroom style with the teacher at the front behind a desk. Show concern for trainees who are quiet and shy. Encourage them to speak. Don't allow the more forceful and confident trainees to interrupt you or the quieter trainees.
- Invite comments on your work. Admit your mistakes and weaknesses. Remember, you are all learning together. The important thing is to learn from mistakes.
- Use discussion more than lectures. Ask questions rather than always giving facts and information.
- Give trainees time to practise skills. They can do this through workshops, role-plays, and activities in the community.
- Each lesson or session should involve:
  (a) sharing knowledge (using information from the Training Modules[1]).
  (b) practising skills (using exercises from the Training Modules and the Nutrition Learning Packages).
  (c) discussing how to take the knowledge and skills into the community (and doing it whenever possible).
  (d) evaluating to make sure that everyone understands and has learned (through questioning, observation and discussion).
  (e) follow-up (discussing what trainees have done in the community to use what they have learned in previous sessions).
  (f) assessment (finding out how well trainees have learned what they need to know).

The Nutrition Learning Packages contain activities and materials that can help you in many of these tasks. You can use them for early training of community health workers and also for later on-the-job or in-service training.

2. Choosing appropriate training methods

How can you choose training methods that help trainees to learn? The Nutrition Learning Packages use a variety of different training methods. Some of these are: demonstrations; role-playing; games; talks or lectures; and visual aids. How do you decide which method to use? Here is a list of questions. Use it as a checklist when deciding on training methods. Your answers will help you make the choice.

- What tasks will community health workers carry out in the community?
- What are their past experiences? Do they communicate more by talking than by writing? Are they used to reading to learn? Do they learn most often by watching others, by listening to stories or in other ways? How much formal schooling have they had?
- Are they men or women? Quiet or outgoing? Confident or shy? Are they able to accept criticism?
- Will they be working in the community with people who are similar to them in culture, education, language, and customs?
- How much time, help, and money do you have for training? How much equipment, such as blackboards and slide projectors, do you have? How many resources such as books, posters and visual aids, and how many facilities, such as electricity and space, do you have?

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[1] From: *Guidelines for training community health workers in nutrition*, 2nd ed. World Health Organization, Geneva, 1986.

- How many trainees are in the group? Are there too many to do much individual work? Are there enough for role-playing and group work?
- Are you teaching:
  FACTS (knowledge)?
  SKILLS (how to do things)?
  ATTITUDES (ways of thinking and feeling about things)?
- When you are teaching:
  FACTS — Use talks or lectures, handouts, slides, books, and examples of real experiences.
  SKILLS — Use description with step-by-step handouts; demonstrations and handouts; practice through role-playing, demonstrations given by trainees, and work in the community.
  ATTITUDES — Use yourself as a role model. Trainees will learn by watching you. Use direct experience with people in the community; discussions with other trainees to share experiences; role-playing in which trainees practise seeing each other's points of view.

You will not always use all the methods for each learning experience. But you can often combine two or three methods in one learning session as do the Nutrition Learning Packages.

Don't forget that the trainees will use you as a model. If you use a variety of methods to help them learn, they will do the same when working in the community.

It is important that trainees have plenty of time to practise their knowledge and skills and to develop good attitudes in a setting as nearly like the real situation as possible. Let them work in the community as much as possible during training.

Some training methods used in the Nutrition Learning Packages are outlined below.

(a) Giving a talk or lecture

Most teachers feel comfortable giving a talk. This is usually the way in which they are trained. A talk or lecture is often not the best way to help trainees learn, but there are times when it is convenient to give a short talk before or after other learning activities.

When should you give a talk?

- To give specific information.
- To reach a number of people at one time.
- To introduce a new or unfamiliar topic.

Why are talks not always useful?

- When people only listen to information, they may not remember much of it. A talk does not help someone to learn a skill.
- Not all trainers make a talk interesting by using pictures, discussions or other activities.

How should you prepare a talk?

- Decide what the trainees need to learn.
- Gather information from your own experience and from books and manuals.
- From this information choose what the trainees need to know.
- Arrange the material in a logical way. Study it until you are familiar with it.
- Decide how much time you will spend on each point. Don't try to cover too much material in one talk. It is better to make two short presentations instead of one long one.
- Write an outline of what you are going to say.
- Plan the questions you will ask, and the visual aids you will use.

What is the best way to give a talk?

- Use simple language. Speak to express what you mean, not to try to impress trainees with your knowledge.
- Speak loudly and clearly, but in a friendly way.
- Use large pictures and visuals that the whole group can see easily, or pass small ones around for each member of the group to look at separately.
- Ask questions.
- Start a discussion.
- Summarize the important points on the blackboard or on large sheets of paper.
- Use a handout for the summary.

(b) Giving a demonstration

When should you give a demonstration?

- To show how to do something (a skill).
- To reach a number of people at one time.
- To make an idea easier to understand.

Why are demonstrations useful?

- Trainees learn best when they use all their senses: sight, hearing, touch and maybe also taste and smell.

- Demonstrations make an idea easier to understand. For example, it is easier to learn how to make a weaning food for a baby by watching it done, than by being told how to do it in a lecture. The best way is to watch it done, and then to do it yourself.

You will find a suggested demonstration in Material 4E of Nutrition Learning Package 4.

How should you plan a demonstration?

- Decide what the trainees need to learn.
- Study any information available on what you want to show.
- Make step-by-step notes on how you will give the demonstration, and on what you will tell trainees at each step.
- Prepare all the materials for the demonstration. Use things that can be found in the community, such as local foods and equipment.
- Practise doing the demonstration until it is easy for you.

What is the best way to give a demonstration?

- Explain what you are going to do and why.
- Explain and show each new practice or habit step-by-step. Be sure everyone can see.
- Repeat any steps that are difficult.
- Ask trainees to help you with the demonstration.
- Speak loudly, clearly and simply. Be as natural as you can.
- Follow the step-by-step notes you made beforehand.
- When you finish, ask some of the trainees to do one or more of the steps so that you can check on how well they have understood. This gives them a chance to practise. If possible, hold a workshop where all the trainees can practise what you showed. This follow-up is important.
- Ask the group what they learned from the demonstration.
- Summarize important points.

How can you encourage discussion after the demonstration?

- Ask trainees what they liked best about the demonstration, what they learned, and what parts could be changed so they would be easier to understand.
- Discuss how and when trainees might use demonstrations in the community. When is a good time to use a demonstration? What are the important things to think about when giving a demonstration in the community?
- As trainees give you the answers, write them on a blackboard or large piece of paper so that everyone can see.
- Summarize. Remind trainees to make a step-by-step outline for each demonstration they plan to give. There is an example of an outline on the next page. Reproduce it as a handout for each trainee, or put it on the blackboard so that trainees can make a copy for themselves. The outline is useful for you to fill in for yourself too.

Outline for planning a demonstration

1. What is the aim of this demonstration?

2. What materials and equipment will I need?

Materials	Equipment

3. What steps must I do and what points must I make at each step?

Steps	Points
(a)	
(b)	
(c)	
(d)	

4. What kind of follow-up will I use?

5. How will I know whether the demonstration has helped the people who watched it learn something new?

(c) Role-playing

Role-playing is like acting out a drama in front of the rest of the group. In a role-play, trainees (and sometimes the trainer as well) pretend to be other people. Each person takes the role of someone else. They speak and act as they think these people would in a given situation. The rest of the group watch and pretend that the role-players really are the people they are acting. The group learns by seeing and discussing how people behave in a certain situation.

Here are two examples of role-plays.

- Four trainees take it in turns to pretend to be a community health worker explaining to three mothers the importance of preventing diarrhoea in their children.
- A large group of trainees pretend to be village leaders discussing how to get some families to stop polluting the village well.

Other examples of role-plays are given in the Nutrition Learning Packages 1, 2, 8, and 9, Materials 1A, 2B, 2C, 8B, 9C and 9D.

When should you use role-playing?

- To move discussion forward when it is stopping. You could say (for example): 'Imagine you are a mother whose child has been sick with diarrhoea for four days and is not getting better. How would you feel? What would you do?'
- You can also use the role-plays for more people and for a longer time, for example, for the whole group for a whole session or for half of a session.

Why is role-playing useful?

- When people pretend to be someone else, they are more comfortable saying how they feel than when they are asked directly about their own feelings.
- Role-playing helps people understand how others feel.
- It can also be used to help trainees practise how to teach or how to communicate with others.

How should you use role-playing?

- Choose a topic or problem.
- Choose the 'actors'.
- Give the role-playing information like a story. For example: 'You are a community health worker. You have just come to visit Mrs Mwangi because you have heard that her four-month-old baby is very sick. You know that last year Mrs Mwangi's 18-month-old child died after severe diarrhoea. What will you do? What will you say?'
- The 'actors' can present the role-play in front of the rest of the group. Or pairs of trainees can take turns acting out the situation, and the whole group can then discuss what happened.
- Summarize the discussion by pointing out the ideas and problems raised. Could this happen to a community health worker when he or she is really working in a village? What should she or he do in the real-life situation?

Why is role-playing important as a learning method?

- Role-playing can be a good learning method. It can show more about people, and how they behave, than pictures or demonstrations can.
- Seeing the role-play about the mother with the baby who has diarrhoea will probably not tell you much about diarrhoea, but will tell you how the mother thinks and feels, and what she says and does, about her baby and about diarrhoea.
- Role-playing can also help community health workers practise how to do their jobs in the community.

Why is a discussion necessary after role-playing?

- Just watching role-playing does not help people learn. The trainer must lead a discussion afterwards to make sure trainees have drawn out of the role-play all the things that can be learned.
- Always discuss what happened in the role-play, how the people felt, why the things happened, and what can be learned from this.

Trainers and teachers often forget that the discussion after role-playing is more important than the role-play itself. They think that trainees learn just by watching the role-play. If trainers and trainees do not discuss the role-play enough, a good opportunity for learning is lost. If you learn to use role-playing well, it can be a good way to help people learn.

It takes time and practice to use role-playing well.

(d) Games

When is it a good idea to use games in learning?

- To start discussion.
- To get trainees interested in a topic.

Why are games useful in learning?

- Most people enjoy playing games. They are fun and they involve everyone.

How can you use games in training?

- Be sure you are familiar with the game. Know the rules. It helps to have tried it with a small group first so that you understand how it works.
- Trainees must also understand the rules of the game. Explain the rules carefully.
- The game must introduce a new idea or ideas that are an important part of the information you want to teach.
- Everyone must have a chance to play the game.
- The follow-up must include a group discussion.

How can you use games as part of a training programme?

- In Nutrition Learning Package 3 there is a Nutrition Snakes and Ladders Game (page 66). Get your group to play the game and then discuss with trainees whether or not it is a good game, i.e. does it help them learn information they need to know.
- Ask trainees whether they know any games that people in the community play. List these on the blackboard or on a large sheet of paper. Discuss ways in which these games could be adapted to help people in the community learn about nutrition.
- Divide trainees into small groups, of no more than 5 people per group. Ask each group to develop a new game related to something they want to help people in the community learn. It could be based on a game already played in the community.
- Bring the groups together. Each group presents its game. One person in each group should lead the game. The others play it and answer the follow-up questions asked by the leader.
- After each game, ask trainees to discuss how interesting and effective they thought the game was. How might they use it in teaching the community?

(e) Visual aids

Visual aids include pictures, drawings, slides and flannelgraphs.

The Nutrition Learning Packages contain some visual aids, for example, charts that can be used to help trainees learn. Some useful slides and flannelgraphs are listed under *Resource materials for learning* on pages 24-25. You may want to make some visual aids of your own for your training course, but as learning to make visual aids would take a whole training course in itself, all we can do here is give you some help in knowing when to use them. Some books listed in the *Resource list for training* on page 23 describe the use of visual aids.

When should you use visual aids?

- To get trainees interested in a subject.
- To start discussion.
- To save time (a picture can show quickly something that would take many words and much time to describe).
- To reinforce learning.

Why are visual aids useful in training?

- Visual aids can give a more accurate idea of something than words alone, as long as photographs, drawings or diagrams are carefully chosen or prepared.
- People remember pictures better than words they hear.
- If people hear words and see pictures at the same time they remember even better.

How can you use visual aids in training?

- Use visual aids as part of a talk or a demonstration.
- Use visual aids that represent real life as clearly as possible.
- Use real things whenever possible. They are better than drawings of things.
- Use visual aids that the students can work with, for example that they can put together, rather than just look at.
- Make your own visual aids using low-cost local materials. When you make visual aids:
  - involve the trainees or people from the community in making them.
  - use skills the trainees already have, for example do not try to teach everyone how to draw but make use of those who already have this skill.

  - try to make the visual aids fun as well as good for learning.
  - use your imagination and let trainees use theirs.
- Keep the visual aids simple. Then trainees can make their own and teach people in the community to help make them.
- Some visual aids, for example films and slides, may be expensive, and may require special equipment, like projectors, in order to be displayed. Simple visual aids are often just as useful and effective. Begin with what you have. People often learn more from getting involved in making visual aids than they do from watching a film or a set of slides, especially if the film or slides show pictures of places and people that are not familiar.
- Use pictures to start discussions by asking trainees what they think is happening in the pictures. Or give them pictures and ask them to make up stories about them. Pictures are most useful once trainees are used to using pictures as a way of learning. Some people, especially those who have not had much formal schooling, do not realize that they can learn things from a picture. Before using drawings and pictures for visual aids, pretest them with a group of trainees to be sure that they understand what they are meant to learn from them.

(f) Stories

Stories can be excellent for communicating information. Once they are used to using stories in this way, community health workers can become very good at creating stories to start discussion or to solve problems. Encourage the trainees to make up their own stories, or to use characters from local folklore and culture. Familiar characters make stories come alive for people in the community. In many countries such stories are already used to help children learn important skills and attitudes. They are just as useful for teaching adults. The stories can be adapted and dramatized using trainees from the groups as actors, or by using home-made puppets or simple drawings or pictures.

Nutrition Learning Package 1, Material 1D describes how stories can be used to help in learning, and Nutrition Learning Package 9, Material 9B, shows how to use a story or play as a discussion starter.

(g) Other aids to teaching

Other ways to teach are described in Nutrition Learning Package 8, Material 8C. They are just as useful and important for trainers to use and understand as they are for community health workers. Try to include in your training as many examples of different teaching methods as you can. Methods that are interesting and familiar to your trainees will probably be the most effective. Remember that the community health workers will probably teach the way they have been taught. You will be their model. They will probably use the methods they feel most comfortable with, just as you do.

3. Leading discussion

Discussing or talking together is another way of learning. The Nutrition Learning Packages have many examples of times when discussion can be used. Discussion helps trainees discover new ideas and attitudes.

When should you use discussion?

- To stimulate interest in a new idea.
- To help trainees recognize that they have things to learn from others in the group, as well as things to teach others.
- To help the group work together to solve a problem.

Why are discussions useful?

- People can hear, talk about and consider new ideas.
- A group can work together to find a solution to a problem common to them all.
- Trainees can make their ideas clearer to themselves and to others by saying them aloud.
- A trainer can learn about the ideas and feelings of trainees through discussion.

What is your role as trainer, in discussions?

- You play a quiet but important role in helping trainees discuss things.
- Although you may know the subject well, you should not force ideas on the group. Instead, you should encourage the trainees to talk.
- You should listen carefully, knowing that trainees will learn from example how to help discussion among people in the community.

How can you help a group discuss something?

- Guide the discussion and keep it going by asking questions.
- Ask questions that help the group:
  (a) look at the problem.
  (b) discover the causes of the problem.
  (c) talk about possible solutions to the problem.
  (d) choose the best solution.
  (e) consider how to bring about the solution.
- Encourage quiet people to take part, and stop any one person from talking all the time. Do not talk all the time yourself.
- Keep the discussion on the topic as much as possibe.
- Allow people to express different ideas, but introduce facts and knowledge that help make the discussion clearer.
- Be aware of feelings in the group, and try to stop the discussion becoming too emotional or disturbing.
- Decide when it is no longer appropriate to discuss a certain issue in the group.
- Assure trainees that although learning to help or lead discussions takes time and practice, it is a useful skill that they will develop with practice in the community.

4. Reinforcing learning

Trainees may practise and begin to learn something in a training session. To learn it completely, they need to repeat it, or have it reinforced in other ways.

How can you reinforce learning?

- Summarize what has been learned at every session.
- Review at the beginning of each session what was learned at the last.
- Ask trainees what they have done to follow up on what they have learned. For example, did they show what they learned to someone at home? Did they use it in a community activity?
- Use visual aids to show relevant information. For example, when trainees are studying breast-feeding, posters and materials on the topic can be put up in the training room. Refer to them so that trainees read and study them.
- Bring in resource people, that is people who already have the skill or know the information you are teaching. For example, when trainees are learning about getting to know the community, ask a community worker to tell the trainees how he or she learned about the community when first starting work there.
- Remind trainees that they will need to reinforce their learning when they are working with people in the community. Ask them to think of ways they can do this.

5. Evaluating the trainees' learning

Why should you evaluate the trainees' learning?

- To find out whether the trainees have learned the things they need to know to carry out their tasks as community health workers.
- To learn which parts of the training programme need to be improved.
- To find out whether you have done a good job of training.

How can you evaluate the trainees' learning?

- Evaluate as you go along. This gives trainees motivation to learn throughout the course. It also avoids the worry and work of one final examination. When you evaluate throughout the training, you get useful information to help you identify problems. You can then give attention to those problems and can change the course so that it meets the needs of the trainees more successfully.
- Evaluate how the community health workers perform when they are in the community, both during training and when they are in the job. This helps you know which parts of training were most useful. It also helps you identify things that should be reviewed during later in-service or on-the-job training.
- Use several methods of evaluating. For example, the Nutrition Learning Packages contain sheets of questions and answers for the trainees to use as self-tests. The question sheets can be reproduced, without the answers, and used as tests for each new group of trainees.
- Observe the trainees in activities. Watch them giving demonstrations. Make checklists, based on the examples on pages 14-18, for each trainee, on which you can record progress such as participation in discussion, and development of skills.
- Discuss your observations and evaluation with trainees. Help them see their progress. Praise them when praise is deserved. Make suggestions for improvement when necessary.

Here are some examples of checklists that can help you, as a trainer, to evaluate certain skills and attitudes of the trainees. They are only suggestions. You can adapt the checklists to suit your trainees, and the various tasks they are learning to carry out.

Example 1:
Checklist to assess or evaluate skills, for example weighing a baby accurately to 0.10 kg with a hanging spring balance

The trainee must carry out the following steps.

(Put a tick in the appropriate box)

	Not done	Done correctly
1. Check the adjusting screw on the scale for the 0 mark.	☐	☐
2. Check accuracy of the scale by weighing three known weights.	☐	☐
3. Hang the scale in a suitable, safe place.	☐	☐
4. Get the parent(s) to undress the child.	☐	☐
5. Handle the child competently.	☐	☐
6. Take precautions so that the weight measured is accurate.	☐	☐
7. Read the scale accurately.	☐	☐
8. Record the weight accurately on the growth chart.	☐	☐
9. Explain to parent(s) why weighing a baby is useful.	☐	☐

This type of checklist can be adapted for each skill that trainees need to learn. Just list the steps that must be carried out to complete the task correctly.

Example 2:
Checklist for assessing communication skills in discussion and group work

Rate the performance of each community health worker using the scale below. Put an X at the appropriate place on the line. For example in Question 1, if a trainee health worker will speak clearly but only if asked to speak, you should put a cross at about 0, i.e. in the middle of the line.

	+2	+1	0	−1	−2	
1. Speaks clearly with confidence.						Usually silent and shy. Speaks in a very low voice.
2. Participates in discussion with relevant remarks or constructive suggestions.						Rarely participates or makes relevant constructive remarks.
3. Always listens to other people and appreciates their points of view.						Does not listen to other people, and continues to express own point of view.
4. Contributes, but does not dominate or take over.						Often interrupts or overrides other people's suggestions.
5. Expresses his or her own viewpoint confidently.						Allows others easily to change his or her opinion. Is easily influenced and passive.
6. Accepts criticism cheerfully and makes an effort to adapt.						Resents criticism and refuses to change.
7. Shows ability to build on areas of action and move discussion along.						Unable to relate ideas to own suggestions; introduces irrelevant or useless ideas.
8. Works well as part of a team.						Unable to cooperate with others. Works alone.

Example 3:
Suggested checklist for assessing a group home visit during training

For example, a group of mothers and babies are gathered in one home. Your group of trainees makes a visit. Each trainee weighs a baby. Rate the performance of each community health worker using the scale below. Put an X at the appropriate place on the line.

	+2	+1	0	−1	−2	
1. Confident, communicates with ease.						Obviously shy and very ill at ease.
2. Organizes the weighing activity very well.						Organizes the weighing activity poorly.
3. Weighs accurately to 0.1 kg.						Weighs inaccurately.
4. Completes the Growth Chart correctly.						Completes the Growth Chart wrongly, or not fully.
5. Clearly explains the Growth Chart and weighing procedure to the mother.						Unable to explain the Growth Chart and weighing to the mother.
6. Has a friendly attitude.						Is unfriendly and cold.
7. Finds out useful information from the mother.						Is unable to encourage the mother to give information.
8. Makes suitable suggestions to the mother.						Is unable to make useful and practical suggestions to the mother.

This is just a suggested checklist. There may be other aspects of the trainee's performance that you wish to evaluate. Add these aspects to the list and rate them in the same way. Use the checklist to discuss performance individually with each trainee. Be sure to praise the good things you noted. Emphasizing strengths will help trainees gain confidence.

Example 4:
A guide to group discussion and evaluation of a group home visit

It is useful to hold a group evaluation of the experience of making a home visit. All the trainees can then talk about what they have learned. Encourage trainees to evaluate their own performance during the home visit.

Ask questions such as:

1. How well do you think you carried out the visit as a team?
2. Did you carry out all the activities you planned?
3. If not, what was left out? Why was it left out?
4. What were the most difficult things for you?

    Weighing the baby.

    Talking to the mother.

    Getting the mothers and children to come for weighing.

    Deciding what advice to give.

    Other difficulties.

5. Why do you think these were the most difficult things to do?
6. What could you do differently to make them easier?
7. What would you change if you were going to repeat the visit?

At the end of the group discussion you may wish to share with trainees, in private, the individual evaluation you made of their performance. Remember to praise the good things you noted. Emphasizing strengths will help give trainees confidence.

Example 5
Checklist to evaluate general attitude to job and standard of performance during training

Rate each trainee community health worker's performance using the scale below. Put an X at the appropriate place on the line.

	+2	+1	0	−1	−2	
1. Is a very keen and willing worker.						Does as little as possible.
2. Accepts instructions and guidelines willingly.						Resents or ignores instructions.
3. Is very interested in mothers, children and the needs of the community.						Shows little interest in the community or the people.
4. Is eager to learn.						Is bored with most sessions and topics.
5. Is always on time for sessions.						Is usually late.
6. Is well organized and prepared for activities and discussions.						Is poorly organized and not prepared for activities and discussions.

This is just a sample checklist to be completed as in the previous examples. There may be other attitudes or aspects of performance that you wish to evaluate in the trainees. These can be added to or substituted for those evaluated here.

6. Evaluating your performance as a trainer

Evaluation is important for trainers too. There are several ways you can evaluate whether you are doing a good job as a trainer. You can:

(a) Do a self-evaluation.
(b) Ask other trainers to evaluate your work.
(c) Ask the trainees to evaluate your work.

(a) Self-evaluation

Make a checklist of the important things you should do as a trainer. You can use this checklist as a way of evaluating yourself.

Example 6
Checklist for trainers' self-evaluation

Ask yourself these questions. Do I:

- know the information well?
- relate the information to what trainees already know?
- ask questions and lead discussions to encourage trainees to participate?
- make training plans and materials before training sessions?
- cover the most important things and leave out things that are not important?
- speak and write so that people can understand?
- give examples or tell stories to make ideas clear?
- give time for trainees to practise, study and review?
- answer questions and give criticism with patience and good humour?
- reinforce and repeat the most important points?
- admit mistakes and lack of knowledge and try to find the correct information?
- help trainees see how the learning will help in their work?
- give trainees extra time after sessions for discussion when needed?
- check on the trainees' performance on-the-job through visits or talks with their supervisors?
- ask for suggestions from trainees and others for improving the training course?

(b) Evaluation by another trainer

You can ask another trainer to observe one of more of your sessions. After the session, the two of you can discuss the ways in which the class was good, and ways in which it can be improved. If you are part of a group of trainers, you can do this for each other, using the checklist above.

(c) Evaluation by the trainees

It can be useful to find out how trainees feel about their training. At the end of each session, ask:

- Did they like the session?
- What did they learn?
- How could it have been better?

At first trainees may find it hard to answer these questions. But with practice, and if you let them know you welcome friendly advice, trainees can become good evaluators.

Adapting the Nutrition Learning Packages

You can adapt the Nutrition Learning Packages, if necessary, to suit the culture, environment and specific needs of your own community.

How can you adapt the Learning Packages? You can:

- Organize a working group to do the adaptation. A small group can be chosen from trainers of community health workers, experienced community health workers or other community workers, nurse/midwives, medical personnel in the village or local health centres, nutrition workers, doctors, and JNSP Project staff, for example.
- Ask the working group to consider the following questions:
  - (a) Is the material important for trainees to learn?
  - (b) Do the trainees already know the information?
  - (c) Will the trainees be able to use the materials?
  - (d) Is there too much material for trainees to use?
  - (e) Can trainees read the material as it is or should it be translated or simplified?
  - (f) Will trainees be able to understand the drawings? Should the drawings be changed or the people in them made to look like the local people?
  - (g) Is the material acceptable to trainees, thinking of their traditions, religion, social situation and culture?
  - (h) Are the learning activities appropriate to be done by all the trainees, whether men or women? Can the materials be adapted to be suitable?
- Decide which members of the group will be responsible for reviewing the individual Nutrition Learning Packages and making suggestions for their adaptation.
- Collect and review suggestions.
- Appoint one person, or a small group, to use suggestions and make rough drafts of the adapted Learning Packages.
- Review the adapted drafts with the working group.
- After approval of drafts, arrange for translation if needed. (See *How do you choose a translator.*)
- Arrange for adaptation of drawings if needed. (See *How can you use drawings and pictures?* on page 21.)
- Arrange for pretesting of the adapted Nutrition Learning Packages in a training situation.

Pretesting the materials

The working group will test the materials with groups of trainees, and make observations during and after training. Users' comments can be collected by means of a previously prepared questionnaire asking:

- How useful were the materials?
- Which parts were not useful?
- What difficulties did you experience in using the materials?
- What additions should be made? What things should be taken out?
- Do you have any other comments on content, presentation, drawings, etc?

Collect, summarize and analyse the comments and suggestions, and use them as a basis for an improved set of Nutrition Learning Packages.

How do you choose a translator?

- The translator must be fluent in both English and the local language. It helps if the translator has lived for some time among speakers of both the local language and English so that she or he is familiar with language styles and dialects.
- The translator needs to be familiar with the subject matter to be translated. That does not mean that the translator must be a nutritionist, but he or she should have some knowledge of nutrition and primary health care.
- The translator must be able to write at a simple level in the local language. The Nutrition Learning Packages are written simply, using fewer than 2000 English words. There are word lists for each Nutrition Learning Package to help translators with their work.[1] Each word list contains all the English words used in a particular Nutrition Learning Package. The lists made it possible to check that simple vocabulary was used throughout, and also aided the choice between alternative terms with the same meaning. For example, vitamin C was chosen rather than ascorbic acid or ascorbate. The words in the lists can be translated to make a specific

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[1] The word lists are available from Nutrition Unit, World Health Organization, 1211 Geneva 27, Switzerland.

'translation dictionary' for each Learning Package. Translators can also decide in advance between alternative local terms, and choose the ones to be used consistently throughout the packages.

How can you use drawings and pictures?

If people have not had much formal schooling, they may not be used to learning from pictures. People who have had some chance to learn to use pictures will pick up the skills of 'reading' pictures more easily than people who have never been to school.

- If you use pictures, make them agree with, and strengthen, the information you are teaching. Don't use a picture just because it is attractive, or because you like it.
- Make people in the drawings look friendly. Figures should be dressed to look like the people in your community.
- Make sure all technical points are correct when pictures are adapted or new ones are made. For example, the way a mother holds her baby when breast-feeding, or the way in which an injection is given should be shown accurately and correctly.
- It is more important for a drawing to be clear and easily understood than for it to be artistic.
- Make sure your use of colours is appropriate to the culture. For example, if red is a happy colour in your community, don't use it to mean danger. You can ask trainees or people in the community what different colours mean.
- Studies show that shaded line drawings like the one below (Fig. 1) are most easily understood by most people. Such drawings are used in the Nutrition Learning Packages rather than photographs or other pictures that would be hard to adapt and reproduce.
- Before drawings are finalized, you may wish to pretest them with a few selected trainees to see whether they are clearly understood, that any use of colour is appropriate, etc. (For help with pretesting, see the *Resource list for training*, on page 23, which includes a UNICEF booklet on the subject.)

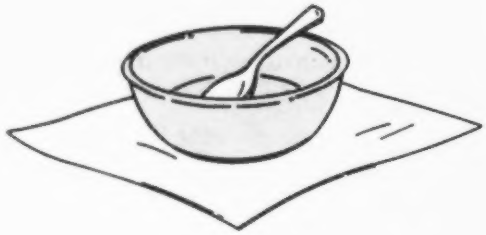


Fig. 1 This style of drawing is clear and easily understood

Glossary

Trainers should be familiar with the following words which are used in this guide.

Activities
A group of tasks.

Assessment
Measuring progress or results, for example, of a programme of activities or of a trainee's performance.

Checklist
A list of items or actions to be looked at, one at a time, to check that no item or action is overlooked.

Community-based training
A way of training community health workers through a combination of learning in the classroom and organized opportunities to practise what has been learned, in a community near the training site.

Evaluation
A judgement of the value of an activity or programme based on measurement or assessment of the results of the activity or programme.

Guidelines
A number of suggestions, sometimes in the form of a book or paper, about how to proceed with an activity or a plan.

In-service or on-the-job training
Planned opportunities to reinforce the initial training of community health workers through occasional training after they have started working.

Learning objectives
What the learner should be able to do at the end of a period of training that she or he could not do before.

Participatory learning
A process of learning in which the people being taught are actively involved in what they learn. They help themselves to learn.

Pretesting
Testing learning materials, before printing, to find out whether the people who are meant to use the materials can understand them.

Priority
The order of importance.

Problem
An unsatisfactory state or condition that is difficult to change to a satisfactory and desired future state.

Problem solving
A step-by-step way of finding the solution to a problem and carrying it out.

Reinforcement
Strengthening the process of learning through repetition or through relating one new thing to another.

Resources
Funds, materials and/or people needed to achieve an aim.

Resource list for training

These are general resources for training.

Title: *Teaching for better learning — A guide for teachers of primary health care staff,* Abbatt, F.R., 1980. (Section 4. Preparing teaching materials).
Available from: Division of Health Manpower Development, World Health Organization, 1211 Geneva 27, Switzerland.

Title: *Teaching skills development manual,* Ewan, C.E., 1982 (Learning Unit 4. Using learning resources).
Published by: WHO Western Pacific Regional Teacher Training Centre for Health Personnel, Univerity of New South Wales, Kensington, New South Wales, Australia.

Title: *Producing manuals for health workers,* Godwin, P., 1983.
Available from: African Medical and Research Foundation, PO Box 30125, Nairobi, Kenya.

Title: *Pretesting communication materials,* Haaland, A., 1984.
Available from: UNICEF, PO Box 1435, Rangoon, Burma.

Titles: *Homemade teaching aids, principles and examples* and *Learning to draw and use pictures.*
Available from: Hesperian Foundation, PO Box 1692, Palo Alto, CA 94302, USA.
Material: slide sets.

Title: *Health problems in the community: using drawings to start discussion,* 1983.
Published by: Health Manpower Development, John A. Burns School of Medicine, University of Hawaii.

Title: *Illustrations for training community workers,* 1983.
Published by: Health Manpower Development, John A. Burns School of Medicine, University of Hawaii.

Title: *Visual communication handbook. Teaching and learning using simple visual materials,* Saunders, D.J., 1979.
Published by: United Society for Christian Literature, Lutterworth Educational, Guildford and London, England.

Title: *Visual aids for nonformal education,* Vella, J., 1979.
Available from: Center for International Education, University of Massachusetts, Amherst, MA 01003, USA.

Title: *Understanding pictures,* Walker, D.A., 1979.
Available from: Center for International Education, University of Massachusetts, Amherst, MA 01003, USA.

Title: *Low cost printing for development,* Zeitlyn, J., 1982.
Available from: FAO Action for Development, Freedom from Hunger Campaign, PO Box 3059, New Delhi, India.

Resource materials for learning

These are materials that complement the Nutrition Learning Packages.

Nutrition Learning Package 1

Getting to know the community

Title: *Bridging the gap: a participatory approach to health and nutrition education,* 1982.
Available from: Save the Children Fund, 54 Wilton Road, Westport, CT 06880, USA.

Title: *Participatory education – an appropriate technology for community health programmes.*
Available from: Contact 55, Christian Medical Commission, 150 route de Ferney, 1211 Geneva 20, Switzerland.

Title: *Community involvement.*
Available from: Programme for Control of Diarrhoeal Diseases, World Health Organization, 1211 Geneva 27, Switzerland.
Material: module for training course on supervisory skills.

Nutrition Learning Package 2

Measuring growth

Title: *Road to health flannelgraph and teaching aids.*
Available from: TALC, PO Box 49, St. Albans, Herts AL1 4AX, England.

Nutrition Learning Package 3

Breast-feeding

Title: *Breast-feeding,* 1979.
Available from: Division of Family Health, World Health Organization, 1211 Geneva 27, Switzerland.

Title: *Breast-feeding your baby.*
Available from: Caribbean Food and Nutrition Institute, PO Box 140, Kingston 7, Jamaica.
Material: complete teaching package with slides, audio cassette, poster, booklet for mothers, and fact sheets.

Title: *The community health worker,* 1987 (Unit 17 – First few weeks after delivery. Unit 20 – Child care and feeding).
Published by: World Health Organization, Geneva.

Nutrition Learning Package 4

Feeding young children

Title: *Give your child plenty of soup.*
Available from: TALC, PO Box 29, St Albans, Herts AL1 4AX, England.

Title: *The community health worker,* 1987 (Unit 20 – Child care and feeding).
Published by: World Health Organization, Geneva.

Title: *Guidelines on infant feeding,* 1984.
Available from: National Nutrition Coordination Committee, Nutrition Division, Ministry of Health, PO Box M-78, Accra, Ghana.

Title: *Weaning: from breast milk to family food,* 1988.
Published by: World Health Organization, Geneva.

Nutrition Learning Package 5

Nutrition of mothers

Title: *Healthy pregnancy: a workbook for community health workers,* 1983.
Published by: Health Manpower Development, John A. Burns School of Medicine, University of Hawaii.

Title: *The community health worker,* 1987 (Unit 15 – Pregnancy).
Published by: World Health Organization, Geneva.

Title: *Nutrition and families,* Jean A.S. Ritchie, 1983.
Published by: Macmillan, London.

Nutrition Learning Package 6

Nuritional deficiencies

Title: *Good food, good health, good eyes.*
Available from: World Neighbors, 5116 N Portland Ave, Oklahoma City, OK 73112, USA.
Material: filmstrip.

Title: *Malnutrition in an urban environment.*
Available from: TALC, PO Box 49, St. Albans, Herts AL1 4AX, England.
Material: slide set and script.

Title: *Save your child from nutritional blindness*, 1984.
Available from: Division of Family Health, World Health Organization, 1211 Geneva 27, Switzerland.
Material: leaflet written in English or French.

Nutrition Learning Package 7

Nutrition during diarrhoea and infections

Title: *The treatment and prevention of acute diarrhoea: practical guidelines*, 1988.
Published by: World Health Organization, Geneva.

Title: *Dialogue on diarrhoea.*
Available from: AHRTAG, 85 Marylebone High St, London W1M 3DE, England.
Material: free quarterly newsletter.

Title: *Monthly child care calendar.*
Available from: Expanded Programme for Immunization, World Health Organization, 1211 Geneva 27, Switzerland.
Material: chart.

Nutrition Learning Package 8

Communicating nutrition

Title: *Teaching for better learning. A guide for teachers of primary health care staff,* Abbatt, F.R., 1980.
Available from: Division of Health Manpower Development, World Health Organization, 1211 Geneva 27, Switzerland.

Nutrition Learning Package 9

Solving problems

Title: *Looking for a mate.*
Available from: Save the Children, 54 Wilton Road, Westport, CT 06880, USA.
Material: game.

Nutrition Learning Package 1

GETTING TO KNOW THE COMMUNITY

THIS LEARNING PACKAGE SUPPORTS
MODULE 1: GETTING TO KNOW THE COMMUNITY AND ITS NEEDS
In: *Guidelines for training community health workers in nutrition,*
WHO, 1986

Contents

This Nutrition Learning Package contains materials for use in training community health workers to be able to:

- Collect information on nutritional needs and problems in a community.
- Find out which people and groups in the community can help identify nutritional problems.
- Decide which nutritional problems are most important.
- Plan actions with people in the community to overcome those problems.

Materials

IA Introducing yourself to others.

IB Learning about the community.

IC Looking at different food problems and their causes.

ID Choosing which problems to attack and how (ie, developing a Community Nutrition Plan).

IE Looking at community leadership.

How to use the materials in Nutrition Learning Package 1

1A Introducing yourself to others

This is a role-playing activity for trainees. You can adapt the role-play for trainees by using local names for the village people, for example, midwife instead of traditional birth attendant. Use familiar names that the trainees will understand. Add pictures or drawings if you wish. After adaptation, it may be useful to give trainees copies of the role-play to guide them as they carry out the activity.

1B Learning about the community

This material gives information on why and how health workers collect information in the community. Give it to trainees as reading matter to prepare them for a group discussion. Or give it as a summary after the discussion. It can also be given as a summary if you give a lecture on the topic.

1C Looking at different food problems and their causes

This material gives: information on how to find out what food problems exist in the community; a checklist to find out the causes of these problems; instructions on how to adapt the checklist for local use; and advice on how to ask direct questions that are easy for people to answer.

Give the material to each trainee. As a result of the *Learning about the community* activity above, trainees may already have found some food problems in the community. Use the *Food problems checklist* with the group to find out some of the causes of these food problems. Discuss the answers. Now as a group, adapt the checklist to use with people in the community. Make copies of the adapted checklist.

Each trainee, or pair of trainees, will take the checklist and ask two or three people in the community to answer the questions. Allow trainees to practise asking questions through role-play first.

When the group meets next, compare the answers people from the community gave. Compare these people's answers with the trainees' own answers. Are the answers similar? Different? Discuss what effect these differences or similarities could have on nutrition work in the communtiy.

Trainees then use the checklist in the community to find out about food problems.

1D Choosing which problems to attack and how

This material contains stories and examples. It will help you lead follow-up discussion after trainees have used the *Food problems checklist*. The stories can be read aloud by trainees.

They show that problems can be caused by many different things. You may have stories of your own that show this. If you do, then use them as a basis for your discussion. Ask the trainees what they would do to solve the problems outlined in the stories.

1E Looking at community leadership

This material describes the kinds of leaders a community health worker may find in a community and suggest ways to work with them. Ask trainees to make a list of community leaders in their local community. Use the questions on page 39 to discuss each leader. Trainees may find this material useful as a reference for later work.

1A Introducing yourself to others

As a community health worker, you will talk to the people in the village about the way they live. If you are a stranger to the village you should let people know who you are, and why you have come. You have to learn how to introduce yourself to the people in the village so that they know you are friendly, and will accept you. Even if you are not a stranger to the village you will need to explain why you ask certain questions. It may be important to get the permission of the village leader or others in the village, such as the elders or the council, before you start talking to people.

Here is an activity to help you practise how to introduce yourself and your job to others.

Six trainees will be selected, or will volunteer, to play the parts of:

- The village leader
- A mother
- A traditional birth attendant (midwife)
- A schoolteacher
- A religious leader
- A traditional healer

Trainees then take turns to be a community health worker.

Each community health worker introduces him or herself to the six people in turn. These people can ask the community health worker questions. The rest of the group watch the role-play.

The community health worker has to explain why he or she has come, and must answer any questions asked.

After the interview the group discusses whether the community health worker introduced him or herself in the best way.

1B Learning about the community

Why collect information in the community?

Your main task as a community health worker is not to deliver services, or simply to act as a link between the community and the outside health system. It is to help people learn how to meet their own, and each other's, health needs more effectively. In order to do this, you need a deep understanding of the community's strengths, problems, and special characteristics. It is usually not necessary to carry out a detailed survey of the community, but gathering specific information can be very useful. For example:

- People in the community may want to see whether many children are underweight (poorly nourished), and therefore more likely to get sick.
- They may want to find out whether bottle-fed babies in their village get diarrhoea more often than breast-fed babies.
- They may want to see whether a particular health activity produces results. For example, a village may plan a campaign to control malaria. Village people can take a survey before they begin, to find out how many people have had fevers and chills, then after everyone has taken part by draining ditches, sleeping under mosquito nets, and getting early treatment for any symptoms, the villagers can take another survey and compare the results of the two.

Because surveys of communities often show results that would not otherwise be noticed, they can help to renew people's enthusiasm for continuing an activity (or encourage them to stop or change an activity that is not working).

How to collect information in the community

Ideally, a community diagnosis, analysis, or survey is a self-analysis by the community of the problems that concern people most. This is carried out by collecting the information listed on this and the following page.

Together with people from the community you should find out about local needs, social factors, and resources.

Needs

- What are the local health problems and their causes?
- What other problems affect people's well-being?
- What do people feel to be their biggest problems and needs?
- What are the local beliefs, customs, and habits that affect health?

Social factors

- What are the main family and social structures in the community?
- What traditional forms of healing and problem solving are there?
- What kinds of relationships do people in the community have?
- How do people learn? What traditional methods of learning are there, and what is learnt in school?
- Who is in charge of what? For example, who distributes land, who has power over other people, and who owns resources?
- What kinds of foods do people in the community traditionally eat?

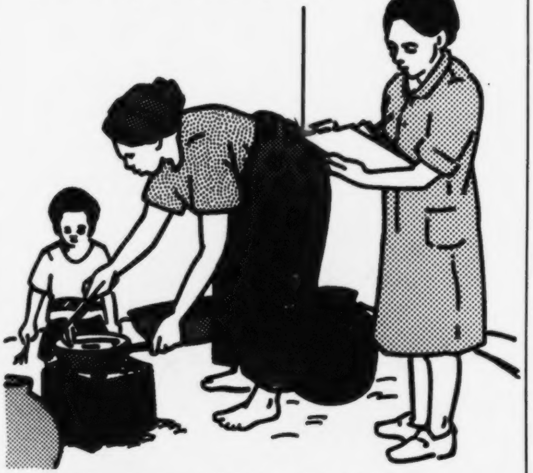


Fig. 2 This community health worker is recording information on what mothers in the community usually give their children to eat

Resources

- Which people in the community have special skills, for example as leaders, healers, storytellers, artists, craftsmen and women, and teachers?
- What natural resources exist in the area, for example land, crops, sources of food, sources of fuel and water?
- Are the supplies of materials for building and clothing adequate?
- What markets, means of transportation and communication, and tools are there?
- How much work is available for local people?
- How do people's earnings relate to the cost of living?

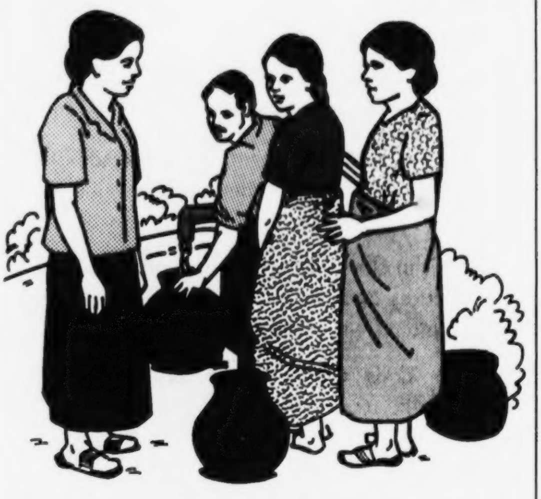


Fig. 3 A community health worker needs to know what resources are available in a community, for example, whether there is a good supply of clean water

This is a lot of information. But fortunately, a health worker who is from the community already knows most of the important facts. He or she does not need to collect a lot of data. People in a village or community already know most of the essential facts from their own experience. They may not know exact numbers, perhaps, but these are usually not needed so that, even if a health worker is not from the community, all he or she needs to do is to sit down with a group from the community and find out what they already know.

The people from the community should ask themselves:

- How does our situation, i.e. our needs, social factors, and resources, affect our health and well-being?
- How can we work with the situation, for example by using some factors and changing or reorganizing others, to improve our health and well-being?

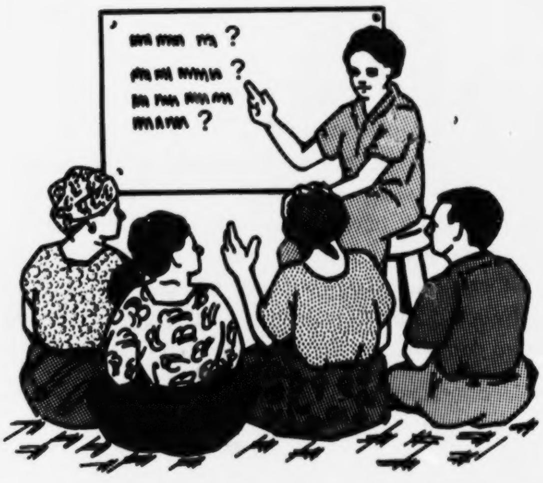


Fig. 4 Health workers can collect a lot of information simply by talking to people from the community

1C Looking at different food problems and their causes

What are the food problems in your community? Observing your community and perhaps taking a simple survey, as described in Material 1B, will help you determine how severe the local food problems are.

In trying to analyse community food problems and their causes, one of the key questions to ask is:

- **Do families often have difficulty getting enough food?**
  (i.e. Do families sometimes go hungry?)

If the answer is no, then the main nutrition problems probably result from people's eating habits. These can be considered cultural problems because they are related to people's customs, beliefs, and attitudes.

If the answer is yes, then the people's main problems are probably to do with growing, producing, storing, or buying enough food. These problems are mostly economic, technical and political. However, people's eating habits may also be a factor.

The *Food problems checklist* will help in finding the causes of food problems in your community. The questions are grouped according to three problem areas: producing food, buying food, and feeding children. Nearly all the 'yes' answers on the checklist are danger signs that indicate food problems in the community.

Food problems checklist

Please tick the box for yes or no

Yes No

A Do families often lack food (i.e. do some people go hungry)? ☐ ☐

If Yes, go to Question B1
If No, go to Question D1

B Producing food

B1 Can the families produce some of their own food? ☐ ☐

If Yes, go to Question B2
If No, go to Question C1

Yes No

B2 Are the family fields too small? ☐ ☐

B3 Are there too few adults who do the farm work? ☐ ☐

B4 Could the families improve their farming methods cheaply and easily? ☐ ☐

B5 Could the families choose better crops? ☐ ☐

B6 Do the families produce things to sell, instead of food to eat? ☐ ☐

B7 Do the families fail to keep enough seed for the next year's planting? ☐ ☐

B8 Do insects, animals, or diseases attack the crops in the fields or in storage? ☐ ☐

B9 Do the plants lack water from rain or irrigation? ☐ ☐

B10 Do the families lack good places to store food? ☐ ☐

B11 Could the families raise small animals for food? ☐ ☐

B12 Do serious diseases attack the animals? ☐ ☐

B13 Could the families gather more wild foods, or could they hunt or fish? ☐ ☐

B14 Do the families sell their food instead of feeding it to their children? ☐ ☐

C Buying food

		Yes	No
C1	Do the families buy some of their food? If Yes, go to Question C2 If No, go to Question D1	☐	☐
C2	Do shops and markets often lack certain nutritious foods?	☐	☐
C3	Do the families lack money to buy the foods that are for sale?	☐	☐
C4	Does food cost too much because transporters and shop-keepers raise the prices?	☐	☐
C5	Is there a shortage of regular jobs in the area?	☐	☐
C6	Do family members working far away fail to send money to their families?	☐	☐
C7	Do the families have trouble selling their handicrafts, or their extra animals and crops?	☐	☐
C8	Do the families buy the wrong foods (such as soft drinks, alcohol, powdered milk formulas, and expensive meats)?	☐	☐

D Feeding the children

		Yes	No
D1	Do the mothers choose not to breast-feed their babies, or do they stop breast-feeding too soon?	☐	☐
D2	Are the mothers malnourished so that they do not have enough breast milk for their babies?	☐	☐
D3	Do the mothers stop breast-feeding their children too suddenly?	☐	☐
D4	Do the mothers become pregnant again too soon?	☐	☐
D5	Do the families feed babies tinned milk or milk formulas?	☐	☐
D6	Are the babies given their first solid foods at the wrong age?	☐	☐
D7	Do the mothers leave their babies with people who do not feed them well?	☐	☐
D8	Are the children poorly fed because their families are separated (for example, by jobs, illness, divorce, or death)?	☐	☐
D9	Do the young children eat only once or twice a day?	☐	☐
D10	Do the families fill the children's stomachs with bulky foods (like cassava) that have few proteins or calories?	☐	☐
D11	Are the foods the adults eat hard for young children to eat and digest?	☐	☐
D12	Do the adults and older children eat most of the food before the younger children get any?	☐	☐
D13	Do traditions stop mothers and young children eating the most nutritious foods?	☐	☐

Adapting the checklist for use in your area

The *Food problems checklist* is designed to help community workers look mainly at the food problems of children. To look at the food problems of other people in the community, such as pregnant women, mothers, or sick people, additional questions will need to be added. Also, for many parts of the world the checklist will need to be revised to include other important causes of hunger. There may be useful questions for your particular area or situation that you would want to include in your own checklist.

Notice that in the checklist some of the more sensitive political and economic questions have not been directly asked. For example:

- Is most of the good farmland owned by only a few people?
- Are wages so low that people have trouble feeding their families?
- Do landholders and merchants bribe local authorities in order to maintain large land holdings, high food prices, or exploitative interest rates on loans of grain or money?
- Do village shop-keepers stock alcoholic or fizzy drinks, vitamin tonics, or expensive canned foods, rather than badly needed low-cost foods?

In some places, care must be taken about asking questions such as these. Their solutions are never quick or easy. Yet in many communities, these questions have more to do with malnutrition than all of the others put together. Although these social causes of poor nutrition must be approached with caution and careful timing, we cannot afford to close our eyes to them.

Making survey and discussion questions specific

A community health worker needs to be very specific when asking questions. Do not ask very general questions that may be difficult to answer. Ask people questions about themselves. For example:

Less appropriate questions	**More appropriate questions**
Do the people in your village raise small animals?	How many chickens does your family have this year? How many goats? How many rabbits?
What foods are usually given to young children?	What foods do you give your child? What did your child eat today?
At what age do children stop getting their mother's milk?	At what age did you stop breast-feeding your child? If the mother doesn't know, ask more questions, for example: Did the child have teeth then? Could the child walk?
What does your family usually eat?	What have you eaten since this time yesterday? What has your husband eaten? What have your young children eaten? What have your older children eaten?

Making questions specific helps people give answers that are close to their day-to-day reality.

1D Choosing which problems to attack and how (developing a Community Nutrition Plan)

A checklist may help identify many food problems. But "yes" and "no" answers alone are not enough. Before deciding which problems to attack first, and how, discuss in detail with members of the community all the problems answered "yes" on the *Food problems checklist*. Try to write a few words about each problem, summarizing exactly what is wrong as people in the community see it.

For example, here are some answers to the food problems checklist written by a nurse in a village called Tonaville.

A Do the families often lack food (i.e. do some people go hungry?)

> Yes, families lack rice from August to December every year. They have to buy or borrow rice from the shops, and it is very expensive during these months.

B Producing food

B 6 Do the families raise things to sell, instead of food to eat?

> Yes, many families grow a lot of tea to sell, but only a little rice to eat.

B 10 Do the families lack good places to store food?

> Yes, they store rice in small houses built on poles, but rats get in and eat the rice

D Feeding the children

D 12 Do the adults and older children eat most of the food before the little children get any?

> Yes, the father of the family always eats first. Then all the children get their food in one bowl. The older children fight for the food, and they don't leave enough for the younger children.

The Community Nutrition Plan

The nurse in Tonaville wanted to choose a nutrition plan to attack the most important problems. Should he attack the problems of producing food or the problems of feeding the children?

The nurse knew it would not help just to tell parents to give their children enough food. In Tonaville, nobody had enough food. Everyone was hungry. The biggest problem was producing enough food. That was the problem the nurse had to attack. If he did not help the families produce more food the plan would be a waste of time.

The nurse began by attacking the biggest problem first – growing tea instead of rice. The nurse wrote an interesting story about two families based on the following idea.

> One family grew rice in their fields, so they had enough to eat. The other family grew tea. Then they used the money to buy rice, but the rice cost so much they could not buy enough.

The story helped the people of Tonaville see their mistake. They began to plant more rice instead of tea.

The nurse also dealt with the problem of rats. The people knew rats were eating a lot of their food, and they wanted to find a way to stop them. The nurse showed the people how to put metal cones on the poles supporting the rice houses to keep the rats from climbing up to the rice. Many of the families in Tonaville began using the metal cones. Each village or community has its own food problems that must be studied and analysed carefully to design a Community Nutrition Plan that is likely to work.

Sample stories

These stories can be read and discussed during community health training. They will help trainees recognize the importance of getting a clear understanding of food problems before trying to solve them. But it will be better if you or the trainees can give similar examples based on your own experiences.

Example 1

In Bulape village, the families grow a lot of maize, cowpeas, groundnuts, and cassava in their fields. A farming teacher visited Bulape and told the people about several ways to improve their farming. "You should put your cassava plants in rows", he said. "You should plant soybeans instead of cowpeas, because soybeans grow faster. You should raise rabbits and pigeons too."

These were all good ideas. They probably would have helped the families grow more food. But Bulape families already had enough food, so producing food was not their real problem. The farming teacher's plan was not good for Bulape.

The real problems were that mothers became pregnant again too soon after having a child, stopped breast-feeding their babies too soon, and then fed them only cassava porridge. The health team at Bulape started several nutrition centres. In the centres, the families practised mixing maize and groundnuts to make a more nutritious porridge for the babies. Mothers also learned about ways to avoid getting pregnant again too soon, so they could give each child breast milk until she or he was 2 or 3 years old.

Example 2

In Eta City, the health team chose the wrong nutrition plan. They started nutrition classes to show the mothers how to pound dried fish and how to add it to the babies' porridge. But the plan was no good, because the mothers didn't have enough money to buy dried fish in the market. These mothers really needed to sell their handmade baskets. They also needed to join together to buy fish more cheaply. In Eta City, the real problem was in buying food. A good nutrition plan had to attack this problem.

Example 3

In Lo Thana, mothers believed that young children should not eat goat meat. The schoolteacher believed that goat meat was a good food, so she tried to teach the mothers to feed goat meat to the children. But after a year, the same number of children were still malnourished. Then the teacher learned that no one in Lo Thana ate meat very often. Animals were killed for meat only on special occasions. Usually people ate wheat or beans. The real problem was that the fields did not produce enough wheat and beans. Lo Thana really needed help with farming, not lessons on feeding children goat meat.

Sample stories 1–3 tell about problems that could be solved inside the community. However, sometimes the causes of the biggest food problem come from outside the community. Here are some examples. It is better to use examples of your own if you have some.

Example 4

On the edge of a large city was a poor neighbourhood called Tintown. There was no space for gardens, so people bought all their food in markets and stores. But food prices were so high that the families were never able to buy enough. The main cause of the high prices was the people involved in getting the food from the farmers in the country who produced it to the families in Tintown who ate it. Here is how maize meal got from the farmers to the families of Tintown.

In the countryside, women grew maize in their fields. When the maize was dry, they put it into sacks. A young man bought the sacks of maize and took them to a shed in the village. The owner of the shed bought the sacks and kept them in his shed. A truck driver picked up the sacks and took them to the mill. The mill owner ground the maize into meal and put it back into the sacks. Another truck driver took the sacks to the big market. A young man bought a sack of maize meal and took it on a bus to Tintown. There he opened the sack and sold the meal to six market women. The market women took the maize to the Tintown market and sold it to the local people.

It was not necessary for the maize to be bought and sold by all these people. Every time the maize passed from one person to another, the price went up. The Tintown people needed to avoid some of these people. So they found a man with a small truck who would bring sacks of maize from the farms directly to Tintown. The families could buy sacks of maize at a lower cost, and the women of Tintown themselves pounded it into maize meal. The problem for Tintown families was really outside Tintown. By working together the people of Tintown found a way to attack the problem.

Example 5

In Silva Valley, the big problem is outside the community. Most of the Silva Valley land belongs to three rich families who live far away. The rich landowners have big farms where they raise cattle and sheep to sell in the cities. The landowners do not allow anyone else to grow food on their land, not even the land that is not being used. The families in Silva Valley have only their own small gardens in which to grow food, and they cannot grow enough. The real problem is that a few people own most of the land, while the rest of the people do not have enough land to grow food.

The people of Silva Valley must attack this problem, for it is causing malnutrition in their children. But it is too big a problem for them to attack alone. They must get help from people who have more influence. So they joined together to write a letter to the government to ask for help. The government is now trying to force the landowners to let the poorer families use some of their land. But the landowners are rich and powerful. They have not yet agreed to give up their land.

You have read how people in several communities chose their nutrition plans. Your list of problems in your community will show what nutrition plans you need. You may not know everything about attacking the problems in your community. So you should talk to people who know about farming, or buying and selling, or nutrition. You should also read what other communities are doing to attack their problems.

Sample nutrition plans

In one country a "land fund" has been set up. This fund lends money to organized groups of people who do not own land so that they can buy unused farmland. The programme teaches the people how to improve their soil and crops, so that in a few years they can pay back their loans. The money is then loaned to other groups to buy more land.

In another country a "fence fund" has been set up. Poor farmers can borrow money from the fund in order to fence their plots of farmland. Before this fund existed, poor farmers had to borrow from the rich landowners to fence their land. The interest rates were so high that they could never pay back the loans. This allowed the landowners to claim grazing rights on the harvested fields, year after year. But now the poor farmers are able to sell grazing rights to the rich. This means they have more money for food.

Remember, you should not start any nutrition plan in your community until you know exactly what the food problems are. You must attack the most important problems first.

1E Looking at community leadership

What kind of leaders are there in the community?

At the end of your training as a community health worker you may be told to work closely with the local leaders, and try to get their cooperation in leading community projects and in getting people to participate. But which community leaders should health workers work with?

Villages and neighbourhoods usually have many kinds of leaders, including:

- local authority leaders
- officials sent or appointed from outside the community
- religious leaders
- traditional healers
- schoolteachers
- extension workers
- club, group, union, or cooperative leaders
- women's leaders
- children's and young people's leaders
- committees (for example the health committee or the local school committee)
- those who have powerful influence because of property or wealth
- opinion leaders among the poor
- opinion leaders of the rich.

In nearly all communities there are some leaders whose first concern is for the people of the community. But there may be others whose main concern is for themselves and their families and friends. Often this is at the expense of the others in the community.

> Health workers must learn to identify and work with those leaders who share and defend the interests of the poor.

Too often, training programmes (especially government ones) fail to advise health workers to look critically at leadership. They simply tell health workers to "work closely with the local authorities".

If the local authorities are honest and try to deal fairly with everyone in the community, all is well. But when the interests of those in power conflict with the interests of the poor, the health workers are faced with some difficult decisions. Unless their training prepares them for these, they may be frustrated and discouraged.

But frustration can be transformed, at least partly, into a challenge – if the health workers' training prepares them for it.

How can you learn to identify and work with leaders of the poor?

Divide into groups. Make a list of the different types of leaders in their own villages or communities. Be sure they include unofficial opinion leaders as well as local authority leaders.

Discuss each leader, using questions like these to help you:

- Who chose this leader?
- How was this leader chosen?
- Does this leader fairly represent the interests of everyone in the community? If not, who does he or she favour?
- Who gives this leader orders or advice?
- What has this leader done to benefit the village? To harm it? Who benefits or is harmed most?
- How do the actions or decisions of this leader affect people's health?

Next the following points:

- Which leaders should we try to work with? In what ways?
- Should we include unfair leaders in our community health projects? If so, what might happen? If not, what might happen? If we do (or do not) include them, what precautions should we take?

If local leaders do not fairly represent the poor, what should we do?

–Keep quiet and stay out of trouble?

–Protest openly?

- Help people become more aware of the problems that exist and their own capacity to do something about them? If so, how?
- What would happen if we protested?
- What else might we do?

You may find it difficult to think about these questions, especially if you have been taught to accept your situation, however bad, and keep silent.

On the other hand, you may be eager to question established authority and work for fairer leadership. However, you may be unaware of some of the problems that can arise. Caution is as essential as courage. To help you think about the possible courses of action, and the difficulties that could arise, your trainer might:

- Invite experienced health workers to talk about their own successes and disappointments in working with different community leaders.
- Tell or read stories of experiences from other, similar, areas.
- Use role-playing to explore problems and possibilities in dealing with different leaders.

It is important to remember that no leader is all good or all bad. One of your biggest challenges is to help bring out the best in any leaders you may work with.

WARNING: It is very important for people's health that community health workers help the community look critically at local leadership. But it is important to the health workers' health that they do this with due caution and judgement! Both trainers and community health workers themselves need to weigh up carefully the possible benefits and risks in their particular situation.

Nutrition Learning Package 2
MEASURING GROWTH

THIS LEARNING PACKAGE SUPPORTS
MODULE 2: MEASURING AND MONITORING THE GROWTH AND NUTRITION OF CHILDREN
In: *Guidelines for training community health workers in nutrition,*
WHO, 1986

Contents

This Nutrition Learning Package contains materials for use in training community health workers to be able to:

- Explain how a child's growth and development are related to nutrition.
- Weigh a child accurately.
- Record a child's weight on a growth chart.
- Use growth charts to recognize when a child is growing well and when a child is malnourished (not growing normally).
- Explain the growth chart to others.
- Make and use arm tapes to identify a malnourished child when a weighing scale is not available.

Materials

2A Why do we weigh babies?
2B Learning to use growth charts.
2C Learning to understand growth charts.
2D The WHO prototype growth chart.
2E The arm tape.
2F Weighing children.

How to use the materials in
Nutrition Learning Package 2

2A Why do we weigh babies?

Use this material to encourage trainees to discuss and evaluate reasons for weighing babies. Reproduce it for each trainee. Review the purposes of a baby-weighing programme, who the programme serves most and how the aims of the programme will be achieved.

Discuss with your group the aims it will have for its baby-weighing programme. How will the group carry out the programme? After the discussion, give a copy of *Aspects of an appropriate baby-weighing programme* to each member of the group as a summary.

2B Learning to use growth charts

This material describes a way of helping trainees to use growth charts. If there is a growth chart already used in your community, you should use it for this activity. If there is not, use the World Health Organization growth chart given on page 50.

Trainees can practise weighing real babies and recording weights on the chart. Or they can do a role-play first using a model baby and cardboard mother as described in *Making the practice weighing and use of charts seem real and making it fun*. The scales should be real, accurate, and of the type commonly used in the community.

2C Learning to understand growth charts

This material gives a sample role-play to show what happens to a growth chart if a baby has nutritional or health problems. It also gives two sample growth charts that can be used to start discussion and to help community health workers, or mothers, learn to interpret charts.

2D The WHO prototype growth chart

If your country or community has a growth chart of its own, given out through the Ministry of Health, use that. If the Ministry of Health does not produce a growth chart you could suggest that they develop one. Talk to the people in the ministry responsible for maternal and child health or nutrition. If a growth chart is not available in your area, the *World Health Organization prototype growth chart* can be translated and reproduced for local use. It is best to translate the wording on the chart into the local language and to ask a local printer to print copies.

2E The arm tape

This material covers how to make an arm tape and when and how to use it. Give the material to trainees if they are expected to use an arm tape as a way to check children who are not growing well. If you have never made an arm tape, you should do so, following the instructions on page 53. This will help you discover which local materials are best for the arm tape. If red, yellow and green are not appropriate in your community you should decide which other colours to use to represent severe malnutrition, mild malnutrition, and good nourishment.

Each trainee should use the material as guidance for making an arm tape to use in the community. Each trainee should compare his or her arm tape with the model you have made to be sure it is correct.

Finally, trainees should practise using their arm tapes to measure children in the community.

2A Why do we weigh babies?

Many health programmes include periodic weighing of babies as a basic feature. The purpose of the weighing varies from programme to programme. At best, baby weighing helps health workers, fathers and mothers to work together to discover any problems with a baby's growth and to correct these problems before they become too severe. Weighing can, therefore, help to protect and improve the health of babies and children. At worst, a baby-weighing programme can be a meaningless experience for mothers and fathers. As with most aspects of health care, the way health workers learn about baby weighing during their training will affect how they approach it in their communities. Before setting up a baby-weighing programme community health workers should ask themselves the following questions:

- Whose purpose will our baby-weighing programme serve?
- What is the real reason that most health workers weigh babies?
- What effect, if any, does this have on the children's health?
- How could the programme be improved?
- Who could improve the programme?

Aspects of an appropriate baby-weighing programme

What are the purposes?	Who is served best?	What does the community health worker actually do?
To find out which babies are underweight, and to help parents correct the underlying problem in time.	Mainly the baby but also the father and mother.	Weigh each baby every month. Tell the parents the weight, and explain to them what it means. In the community, seek out and invite any 'high-risk' mothers and babies, for example those from very poor families, or from different cultural or ethnic groups from the rest of the community. Include fathers whenever possible.
To teach parents about child health and nutrition.	The baby, through the mother and father.	Give appropriate advice and demonstrations when mothers come to weigh babies. Follow up with home visits as needed. Talk to fathers when you can.
To encourage self-reliance and responsibility of mothers, fathers and other members of the community.	Mothers, fathers, other community members (and community health workers).	Encourage mothers to keep health charts on their babies, and to learn to interpret them. Use low-cost or home-made scales and teaching aids made by members of the community. Build on local customs, values, and home-care. Let some mothers take increasing responsibility for running the baby-weighing programme. Involve fathers when possible.
To bring parents together to discuss common problems and their causes, and work together towards change.	Mothers, fathers, children, and the whole community.	Lead discussions to analyse needs. Encourage parents to take part in planning and conducting the weighing programme and related activites.
Information or data collection for determining nutritional needs in the community and for evaluating progress.	The health team, the community, and health authorities.	Carefully record and periodically analyse the weight records of all children in the community (every 6 months, or each year).
To provide an occasion for related preventive and curative acitivities.	Children and parents.	If possible, provide at the same time and place: • Immunizations. • Early identification and treatment of health problems. • Prenatal care. • Family planning advice and supplies.

2B Learning to use growth charts

Health workers who are not used to reading charts and graphs may at first have difficulty recording babies' weights accurately, or interpreting what they mean. But with appropriate teaching, health workers can quickly learn to understand and use growth charts. They can also learn to teach nonliterate mothers and fathers to follow the growth of their children on the growth chart. Some community health workers call the growth chart the 'Road to Health'.

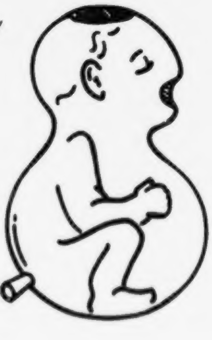


Fig. 5 A model baby

The teaching methods used for helping community health workers learn about weighing babies serve a double purpose. Community health workers can later use the same methods to explain growth charts to mothers and fathers in their villages.

The basic teaching aid for learning to use a growth chart is the chart itself. Practice growth charts can be reproduced at relatively low cost. On page 50 you will find the World Health Organization prototype growth chart which you can use if your country does not already have its own. You may wish to make a large poster or flannelgraph of this chart for teaching.

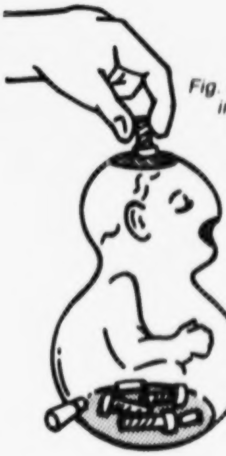


Fig. 6 Some weights have been put inside the model baby to make it the same weight as a real baby

Making the practice weighing and use of charts seem real and making it fun: a teaching idea

If model babies and role-playing are used, then practising weighing babies, using growth charts, and giving advice to parents can be fun.

Make a model baby, similar to the one in the picture, out of clay, a plastic bottle or a gourd (see Fig. 5).

To make the model baby's weight similar to that of a real baby put some heavy objects into it (see Fig. 6). The model baby can be made to gain weight by adding water between weighings.

To make practice weighings more realistic and fun, you can also make a model of a breast-feeding mother. You can use a cardboard carton and a plastic bottle filled with water as shown in Fig. 7.

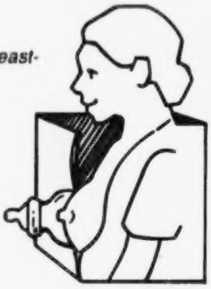


Fig. 7 A model breast-feeding mother

You can attach a baby-bottle nipple to the plastic bottle so that the model mother can 'breast-feed' the model baby (see Fig. 8). In order to let the milk run quickly into the model baby's mouth, cut a hole in the tip of the rubber nipple.

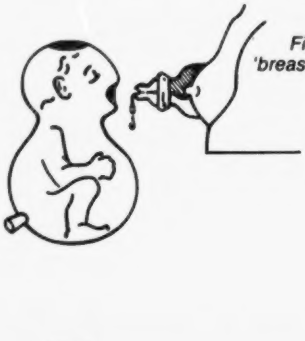


Fig. 8 The model mother 'breast-feeds' the model baby

Using these teaching aids, the trainees (and mothers and fathers) can practise the monthly weighing of the 'baby'. Between weighings, the 'mother' breast-feeds the 'baby' so that it gains weight each time. It helps to hang a calendar on the wall and change it to the next month before each weighing (see Fig. 9). This helps everyone understand that weighing must be carried out every month for several months.

Each 'month', as the baby is weighed, the health workers, fathers or mothers take turns at recording the 'baby's' age and weight on the growth chart (see Fig. 10). In this way, everyone sees how the 'baby's' weight goes up each month, and how the 'baby' is growing.

The use of the model baby and mother is only one idea for teaching the use of growth charts. It was developed by village instructors and students during a training programme, and helped make the programme successful. We hope you and your trainees will think of new and even better teaching aids.

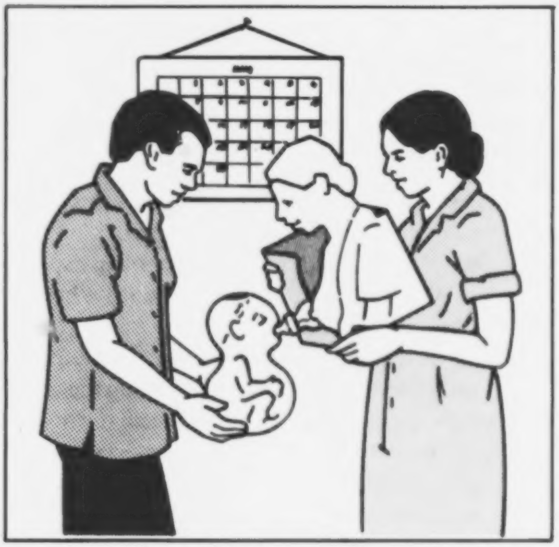


Fig. 9 The mother and father are using the teaching aids. There is a calendar on the wall to show that the baby must be weighed each month.

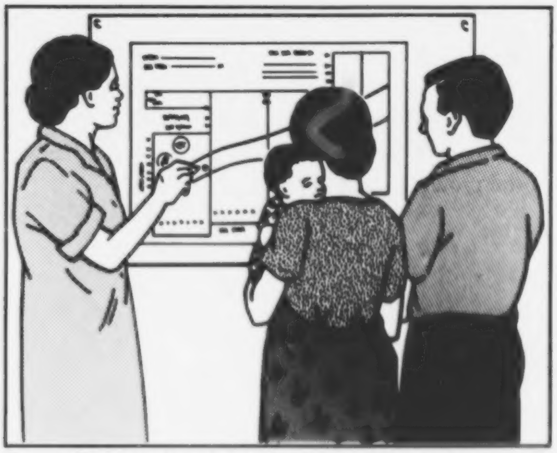


Fig. 10 This health worker is showing a mother and father how to record their baby's weight on a growth chart.

2C Learning to understand growth charts

The group can also use the model mother and baby to role-play various nutritional or health problems that could affect the baby's weight, and they can show how these weight changes appear on the chart.

For example, the group can act out what can happen when a baby is changed from breast-feeding to bottle-feeding and gets diarrhoea.

As long as the baby breast-feeds, he or she gains weight well and the marks made move up on the chart each month. Get the group to 'breast-feed' the model baby as on page 46, and record the weight increases on the growth chart.

But when the baby is changed to bottle-feeding at 6 months, he or she stops gaining weight. Plug the nipple of the plastic bottle so that when the model baby is 'breast-fed' the liquid comes out very slowly. The dots showing the weight on the growth chart will stay at the same level.

Then, because the baby's bottle has germs on it, and the baby is not as well nourished, he or she gets diarrhoea. Remove the plug from the model baby to let some water out. The baby's weight will go down on the growth chart.

Sample growth charts

You can use flannel-board growth charts to start many lively discussions, and to help community health worker trainees or mothers learn to understand the charts and to interpret them correctly. Here are two examples:

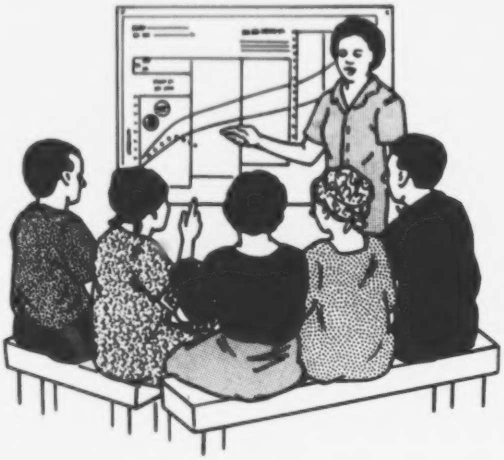


Fig. 11 A sample growth chart. The baby is losing weight

(1) Show your group of trainees and parents Fig. 11 and ask them:

What advice would you give to the mother of this child?

Some answers might be:

- I'd tell her that her baby needs to eat more and better.
- She has probably started bottle-feeding, and is making the milk too thin. I'd warn her against bottle-feeding.

Some parents might ask:

But what if she is too poor to buy her baby good food?

Some answers might be:

- At least she could feed the baby more often, or maybe try to breast-feed again.
- I think she needs more than just advice. This baby has been losing weight for months and she has already had some advice. She needs personal help.
- What her family needs is more land and better pay.

Some community health worker trainers might ask:

What can we as a community do to help?

- This should lead to a useful discussion of the problems of families with children who are not growing well.

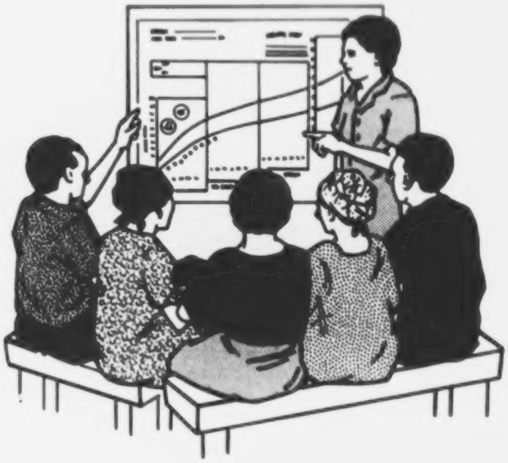


Fig. 12 A sample growth chart. This baby is below average weight and has been for some time

(2) Show the group Fig. 12 and ask them:

What advice would you give to the mother of this child?

Some answers might be:

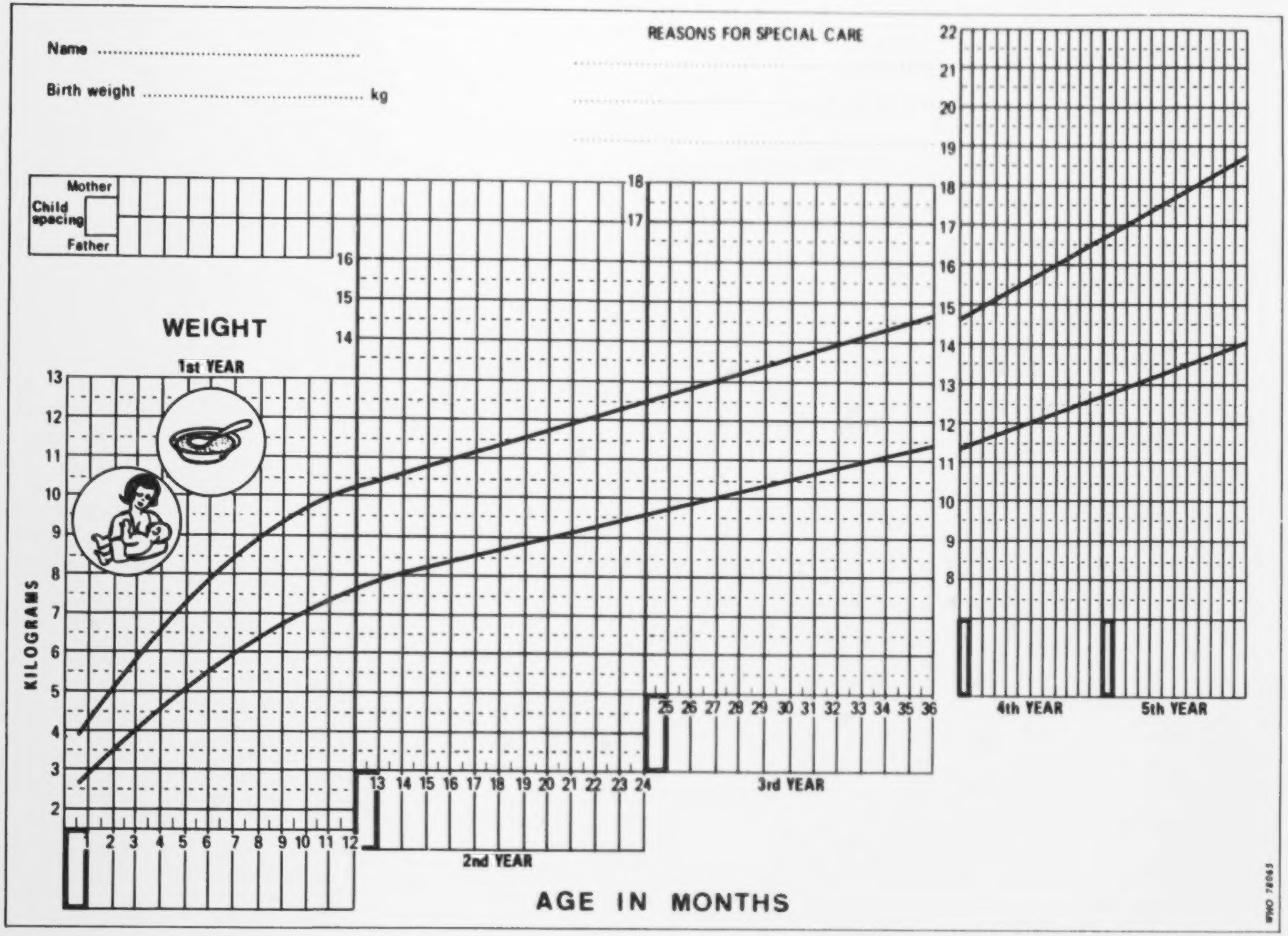
- I'd tell her the baby is underweight and give her advice about how to feed the baby better.
- It looks to me like the child has been underweight for a long time. There must be social problems involved. Perhaps the father has gone and she has to work. Or perhaps she has other problems. She needs special help.

In this case, the right answer would be:

- The baby is below average weight, but is gaining weight month by month. Perhaps the baby's parents are also small. I would examine the baby carefully and if he or she seems healthy, congratulate the mother for taking good care of the baby. I would tell her not to worry if her baby is a little smaller than the others.

This answer is right. Be sure that trainees know it or they may cause the mother needless worry.

2D The WHO prototype growth chart



APPOINTMENTS

Has the mother had her tetanus vaccine?

Date: 1st dose _ _ _ _ _ _ _ _ 2nd dose _ _ _ _ _ _ _ _ _ _

3rd dose _ _ _ _ _ _ _ _ Repeat dose _ _ _ _ _ _ _ _ _

GROWTH CHART

Health centre	Child's No.
Child's name	
Date first seen	Birthday
Mother's name	Registration No.
Father's name	Registration No.
Where the family lives (address)	

BROTHERS AND SISTERS

Year/birth	Boy/Girl	Remarks	Year/birth	Boy/Girl	Remarks

IMMUNIZATIONS

TUBERCULOSIS Vaccine (BCG) - Date :

DIPHTHERIA, WHOOPING COUGH, TETANUS Vaccine (DPT)

Date : 1 dose 2 dose

3 dose

POLIOMYELITIS Vaccine (OPV)

Date : 1 dose 2 dose

3 dose

MEASLES Vaccine-Date :

OTHER Vaccines (specify with date) :*

WHO 88159

2E The arm tape

When to use an arm tape

You can tell whether a child is weak and thin by using an arm tape (see Fig. 13). An arm tape has three colours — usually red, yellow and green. You can make an arm tape according to the instructions on page 53. You can use an arm tape only to find out which children need special care. You cannot use an arm tape to find out how a child is growing month by month. You have to use a growth chart to find out how a child is growing month by month.

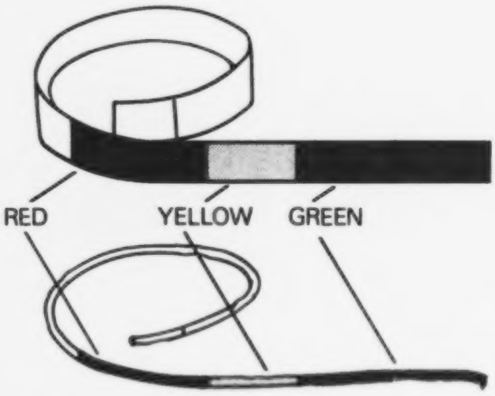


Fig. 13 Arm tapes

The distance around the arm of a child does not get any bigger from about the age of one to five years. A weak and thin child has thin arms. A healthy child has more muscle and fat in the arms. The size of a child's upper arm can tell you if a child is weak and thin. You measure a child's arm with an arm tape. You can use the arm tape to measure children between the ages of 1 and 5 years.

Put the tape around the child's upper arm, half-way between the shoulder and elbow.

See which colour the black line meets. The child is healthy if the black line meets the green colour (or the colour you have chosen to mean all right).

The child is weak and thin if the black line meets the red colour (see Fig. 14). This means the child is in danger. The child needs more food. The child can become very ill and may even die without more food. Ask the parents to take the child to the health centre straight away.

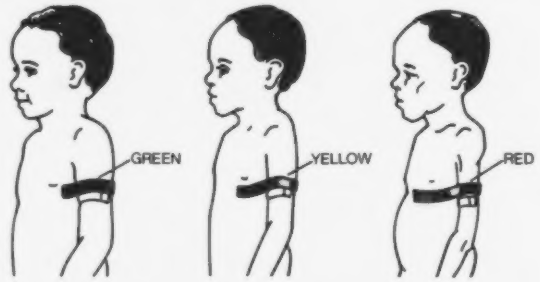


Fig. 14 These three children are being measured using an arm tape. Which child is weak and thin?

You will become skilled in using the arm tape by using it often. Practise using the tape on other trainees and on some children. Use the arm tape to find out whether children are healthy or not. Remember that the tape does not show you how well children are growing.

What are some of the important things you have learned about the arm tape?

How to make an arm tape

You can make an arm tape (see Fig. 13 on page 52) from a variety of different materials. What is important is that the material does not stretch. You can use string, strips from old X-ray plates, tightly woven non-stretch cotton cloth, or paper coated with plastic. The measurements and the way you use the arm tape are the same in every case.

(1) Take a strip of your chosen material, that measures 20 cm long and about 1 cm wide.

(2) Make a clear mark close to one end of the strip.

(3) Measure 12.5 cm from this mark and make another clear mark.

(4) Colour this 12.5 cm red.

(5) Measure a further 1 cm along and colour this piece yellow.

(6) The remaining part should be coloured green.

The colours are based on the idea of red for danger, yellow for warning and green for safety. You can choose other colours to suit the local culture if you wish. Use the colours that mean safe and dangerous in your society. For example, red does not always mean danger.

2F Weighing children

These activity sheets give instructions for organizing a session so that your trainees can practise weighing children. Be sure to carry out each step.

As follow-up, discuss with the trainees how they felt about the activity. Was it useful? Did they learn anything? How did mothers, fathers and other people from the community seem to feel? What would trainees do differently if they were carrying out this activity in their own communities?

Give copies of the activity sheets to trainees for them to keep as a resource for their community work.

Setting:

The setting should be a community centre, school, home or shady area outside.

Time:

Half a day.

Purpose:

The purpose of the session is to help villagers recognize the extent of the nutritional problems in their community and to encourage mothers and fathers to weigh their children, as a way of finding out whether the children are healthy.

Preparation:

To prepare for the session meet the village leaders and explain the purpose of the activity. Invite the villagers or representatives of the village to attend, being sure to include mothers, fathers when possible, and 15 to 20 children under 5 years of age.

You will need a weighing scale and a large poster of a growth chart.

Procedure:

1. Ask the village leader to introduce the group of trainees to mothers and fathers.
2. Explain the purpose of the visit.
3. Show the villagers a picture of a healthy child (see Fig. 15). Ask:
   - Is this child healthy?
   - How many children in our community are healthy?
   - Are there many children who are not very healthy?
   - How can we know which children are not very healthy?

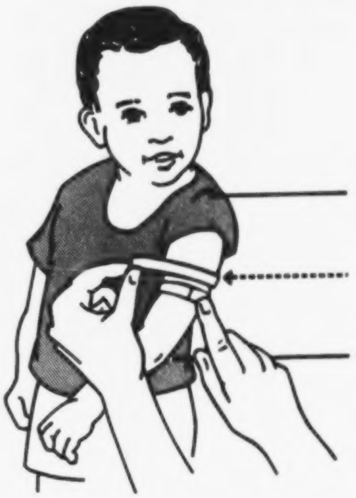


Fig. 15 This healthy child is being measured with an arm tape. Notice that the arm tape is positioned halfway between the shoulder and the elbow

   Make a note of the villagers' reactions. What are their perceptions of the children in their village?

4. Ask the villagers if they would like to survey the children to know whether they are healthy. Explain that in this way they can make a picture or graph of the health situation of children in the village. If the villagers are interested, proceed by explaining that weight is one indication of health. Talk about how a child's weight should increase with age.
5. Ask for a mother and child to volunteer. Weigh the child, and mark the weight on the chart. Proceed to weigh the other children in the group. Mark each child's weight on the graph.

6. When the children have all been weighed explain the graph to the villagers. What is the health situation for these children, compared with an average community? Would they like to weigh all of the children in the community? What about the other children in the community? Explain that by identifying how many children are in danger of poor health, the community can plan to take action to solve the problem.

7. Close the meeting on a positive note. Encourage parents by telling them that they can help their children to be healthy. Give a few simple, practical suggestions.

This is a good way to involve villagers in their own community survey. Leave the growth chart in the community centre and repeat the weighing activity after 6 months to help the villagers evaluate their progress in eliminating malnutrition.

If you want to make this follow-up meeting shorter, weigh some of the children in the village before the meeting. Then plot their weights on the graph during the meeting.

Nutrition Learning Package 3
BREAST-FEEDING

THIS LEARNING PACKAGE SUPPORTS
MODULE 3: PROMOTION OF BREAST-FEEDING
In: *Guidelines for training community health workers in nutrition,*
WHO, 1986

Contents

This Nutrition Learning Package contains materials for use in training community health workers to be able to:

- Find out how mothers feed their children, and what they think about breast-feeding.
- Help mothers to understand why breast-feeding is best for children.
- Help mothers to overcome problems with breast-feeding and to breast-feed successfully.
- Explain the cost and dangers of bottle-feeding.

Materials

3A Messages for mothers.
3B Suggestions for group activities on breast-feeding.
3C Questions to help get group discussion started.
3D Breast-feeding questionnaire.
3E Nutrition snakes and ladders game.

How to use the materials in **Nutrition Learning Package 3**

3A Messages for mothers

These are the main messages that community health workers should help pregnant women to learn. This material may be used to start discussion among trainees. It can also be used as a summary of the most important messages, for them to keep after the training.

3B Suggestions for group activities on breast-feeding

In some communities, it is possible for a community health worker to have group lessons and activities for small numbers of pregnant women at health centres or in homes. These examples: *Getting ready for breast-feeding* and *Successful breast-feeding* may be useful. You and the trainees may be able to think of other activities that are more appropriate to your situation.

3C Questions to help get group discussion started

This list of questions may be helpful to get community health worker trainees to discuss the problems and needs of pregnant and breast-feeding women in their communities. The same questions can be used with mothers and fathers in the community by trainees. The answers will help trainees to understand each family's situation, and the parents' attitudes to breast-feeding. The list also can be used to help community health workers themselves review what they know about breast-feeding. They should be able to answer all these questions by the time they start working in a community.

3D Breast-feeding questionnaire

This questionnaire can be used to assess how much trainees have learned about breast-feeding from the activities and materials given in this Nutrition Learning Package. Give it, with the answer sheet, as a self-test. Or give it as an ordinary test without the answers. After marking the test, or finding out self-test scores from trainees, use the answers in follow-up discussion and review.

3E Nutrition snakes and ladders game

This game can be used to review some messages on breast-feeding and health. You may need to adapt it for your local situation. The game can be played by trainees who can then make up a similar game to use with mothers and others in the communities where they will work.

Can you think of another popular game played in your community that could be adapted by you and the trainees to teach health messages?

3A Messages for mothers

The most important messages about nutrition in pregnancy, and breast-feeding are:

- **Breast milk is the perfect food for babies.** It is nourishing and pure, and it protects the baby from disease.
- **Breast-feeding has benefits for both mother and child.** It creates a bond between mother and child, and gives the child warmth, security and affection.
- **Breast-feeding is natural and easy if the mother-to-be gets ready for it while she is pregnant.** A mother is more likely to have a satisfying and happy experience of breast-feeding if, during her pregnancy, she learns to take care of her nipples, gives her breasts proper support and learns to understand the process of breast-feeding and the good qualities of breast milk.
- **The baby should be put to the breast as soon after birth as possible.** Colostrum, the substance that comes out of the breast before true breast milk, has great benefits for the baby. It provides nourishment and protection against disease.
- **Most mothers have enough milk for their babies.** The flow of milk is stimulated by the baby's suckling at the breast. The more the baby suckles, the more milk will be made.
- **Breast-feeding helps the mother's body return to normal after birth.** It helps the uterus get smaller. It also helps her lose the weight gained during pregnancy.
- **Eating wisely while pregnant is essential for the health of both mother and baby.** No special foods need to be eaten, but the mother should eat a diet of a variety of foods.
- **Successful breast-feeding depends on the mother being relaxed and knowing the best ways to help her baby to breast-feed.** She should put the entire nipple and surrounding area into the baby's mouth. She should give the baby milk from both breasts, one after the other, at each feeding. She should find a position that is comfortable for her to breast-feed, either sitting up or lying down. She should let her baby breast-feed whenever he or she is hungry.
- **Throughout pregnancy and after the baby is born, the mother needs the constant support of her partner, her family and the community health worker.** She should be encouraged to discuss any problem she has with her family and the community health worker. Confidence that she will succeed in breast-feeding and caring for her baby is the most important guarantee for success.
- **The baby needs no other food besides breast milk during the first 4 to 6 months of life.**
- **The mother should breast-feed for at least six months, and beyond that for as long as she wishes.**

3B Suggestions for group activities on breast-feeding

Getting ready for breast-feeding

What does a mother need to know?

- That breast-feeding is natural and easy if a mother-to-be prepares herself properly while she is pregnant.
- That the condition of the mother's nipples can affect breast-feeding. During the last three months of pregnancy, the mother should begin to prepare her nipples. Once a day, a mother should pull and stretch her nipples about a dozen times (see Fig. 16). If the nipples are small, this will help extend them. It will also prevent soreness when breast-feeding begins. This exercise has a similar effect on the breast to the baby's suckling.

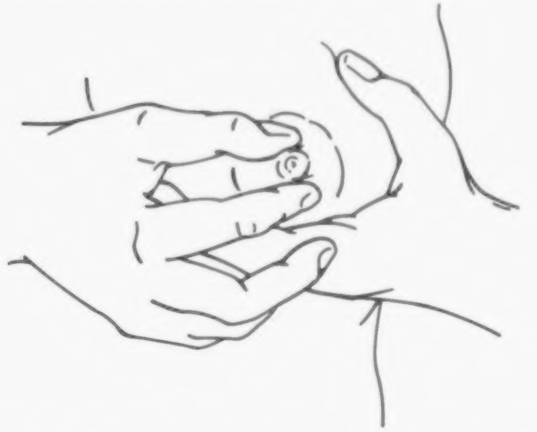


Fig. 16 A woman who is pregnant should prepare her nipples for breast-feeding by pulling and stretching them

- That breast-feeding does not necessarily stop a woman becoming pregnant. To learn how to space children so that both the mother and baby stay healthy, a mother and father should visit the family planning clinic or health centre.
- That the baby should suck from both breasts at each feed. If this is done, the mother's breasts are less likely to become engorged (too full) or painful than if the baby feeds from one breast only. Breast-feeding as often as the baby wants will also prevent engorgement of the breasts.
- That she should wash her nipples before each breast-feed.

Community health workers should encourage any local traditional practices that help in preparing for breast-feeding and infant care. Only customs that are known to be harmful need to be tactfully discouraged.

How can you get this information to the mothers-to-be?

- If the necessary privacy can be found for mothers, arrange a demonstration of the care and preparation of the nipples for breast-feeding.
- Mothers can learn much from each other. You can ask a mother or mothers who are breast-feeding successfully, or who have had good experiences with breast-feeding, to demonstrate the techniques that they have found useful.
- If the breast-feeding mothers are willing, the pregnant women can practise holding the babies and discover which position for breast-feeding seems most comfortable to them.

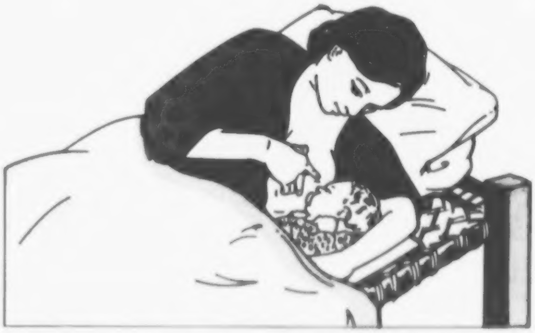


Fig. 17 This mother has chosen to lie down while she is breast-feeding. It is the position that she found the most comfortable.

- A breast-feeding mother could express some breast milk into a clean container before the group lesson. The pregnant women can compare the colour, consistency and taste of this breast milk with cow's milk, goat's milk or any other milk used in the community. A sample of the other milks should also be brought to the lesson so that the comparisons can be made.

Successful breast-feeding

What does a mother need to know?

A mother needs to know the information contained in Material 3A 'Messages for mothers'.

How can you get this information to the mothers?

- Collect information on the price of tinned baby food, bottles, teats, etc. Show mothers and fathers how much money, time and fuel can be saved by breast-feeding instead of, for example, buying baby milks, bottles and teats, and having to boil bottles and water.
- Ask mothers who are breast-feeding to discuss problems they had in the past and how they solved them. Although it is good to be positive in teaching, a discussion of problems such as cracked nipples, engorged breasts and other difficulties can be helpful. However, put most emphasis on prevention of problems through practising the correct techniques.
- Invite a nurse, or someone from the family planning clinic or health centre, to talk about the benefits of spacing the births of children in a family.

3C Questions to help get group discussion started

The most important learning sometimes takes place during discussions, or when mothers and fathers have a chance to ask the community health worker about problems or things they do not quite understand. The following questions are often asked by mothers and fathers about pregnancy, breast-feeding, and young babies. You may find them useful to start the group thinking about their ideas and what they would like to know more about.

- What should a woman eat while she is pregnant?
- Why is it important for a pregnant woman to eat the right kinds of food?
- How many mothers-to-be in the group plan to breast-feed?
- How soon after the birth should a mother start to breast-feed her baby?
- Should the baby be given the watery 'first milk' that comes into the breasts?
- Is it better to breast-feed or bottle-feed a baby? Why?
- What are the advantages of breast-feeding a baby?
- Why do some babies get diarrhoea?
- How often should a mother breast-feed a baby?
- For how many months should a baby be breast-fed?
- Does breast-feeding stop a woman becoming pregnant?
- How can a mother tell whether her baby is getting enough milk?
- When should a baby be given other foods besides breast milk?
- What should be the first foods given to a baby along with breast milk?

The trainees should be able to think of other questions that parents may ask. Trainees can also use this list of questions to help them decide whether they themselves know all they should about breast-feeding. Trainees should know the right answers to these questions when they begin advising mothers on what to eat during pregnancy.

3D Breast-feeding questionnaire

This questionnaire can be used as a test or self-test on breast-feeding.

1. What foods are good for a mother who is breast-feeding?
2. When a mother who is breast-feeding eats enough food, her baby gets enough food. Why?
3. Can you think of any foods that mothers in your community do not eat when they are breast-feeding?
4. It is cheaper to buy food for a mother than to buy milk for her baby. Why?
5. What is the best kind of milk for a baby?
6. What should a mother do so that she can breast-feed her baby better?
7. How often should a mother breast-feed her baby?
8. What should a mother in your community do if she thinks she does not have enough breast milk?
9. How can a mother know whether her baby is getting enough breast milk?

Answers to the breast-feeding questionnaire

1. A breast-feeding mother should eat more than one kind of food. Any soups, stews or relishes that the family eats are good for her. She also needs the cereal or staple food of the community (for example rice or maize), and some peas or beans (or a food from an animal, for example eggs, milk, fish or chicken). She should also eat vegetables, especially those that have dark green leaves, or that are yellow or orange. She should eat fruits too.

2. When a mother eats enough food, her body makes enough breast milk for her baby. This means that the baby gets enough food.

3. This will be different in different communities or countries.

   At your next training session discuss which foods are good for mothers to eat. Make a list of the foods that are grown or are available in your community.

4. It is usually much cheaper to buy more food for the mother than to buy tins of milk for the baby.

   Find out the cost of the foods that grow locally, and the cost of foods sold in the market. Also find out the cost of tinned baby milk. Work out how much it would cost for a mother to eat more food while she is breast-feeding. Chose a period of six months to do the calculation. A mother needs to eat about 1½ times what she would normally eat. Work out how much it would cost to buy enough milk to keep the baby healthy and growing for six months.

5. A mother's breast milk is the best food for her newborn baby. The baby needs love and care to grow up healthy and strong. Breast-feeding shows that the mother loves and cares for her baby. A mother should breast-feed her baby from the day he or she is born.

   The breast milk produced in the first few days after the baby is born is special. This milk may be different from the milk that comes later. It is sometimes yellow in colour. A mother should feed this special milk to her baby. This special milk protects her baby from many illnesses.

6. A mother should prepare herself for breast-feeding before her baby is born. A mother should look after her nipples especially if they are flat. She should gently rub them and pull them to make them stand out so that her baby can suck well. Breast-feeding is easy if the mother takes good care of her breasts.

   A mother should be especially careful to keep her breasts clean when she is breast-feeding to make sure that dirt does not get into the baby's mouth. Then the baby will not get sick. Also when a mother keeps her breasts clean, her breasts and nipples are much less likely to get sore and painful, so she will be able to breast-feed easily.

7. A mother should breast-feed her baby six or seven times a day, whenever the baby is hungry.

8. If she thinks she does not have enough breast milk, a mother should eat more food. She should also drink lots of fluids. Plenty of food and drink will help a mother's body make more milk for her baby. She should also try to rest more.

   Sometimes a mother thinks she does not have enough breast milk. But she may have enough milk for her baby as long as she breast-feeds the baby often. When a mother breast-feeds her baby often, the mother's body makes more milk.

9. If a baby is getting enough breast milk, he or she will be satisfied and sleep well after feeding. The baby will urinate several times each day. A baby who is not feeding enough will cry often.

   A baby who is getting enough breast milk will grow well. A mother should take her baby to the health centre every month. There the health worker will check to see whether the baby is growing well.

3E Nutrition snakes and ladders game

Rules

- Two, three or four people may play. Each player places a counter at Space 1 on the board.
- The players take turns to throw a dice, or spin a spinner. The player who has the highest number starts the game by throwing the dice or spinner and moving his or her counter according to the number shown on the dice or spinner.
- If a player scores a six, he or she throws the dice again. If a player's counter stops on the head of a snake, the player must slide the counter down the snake until it gets to the tail, then the player carries on from that point. If a player's counter lands at the foot of a ladder, the player moves the counter to the top, and carries on from there.
- Both the snakes and the ladders carry health messages. A player whose counter lands on the head of a snake or the foot of a ladder should read out the health message to the other players.
- The first player to reach Space 40 is the winner.

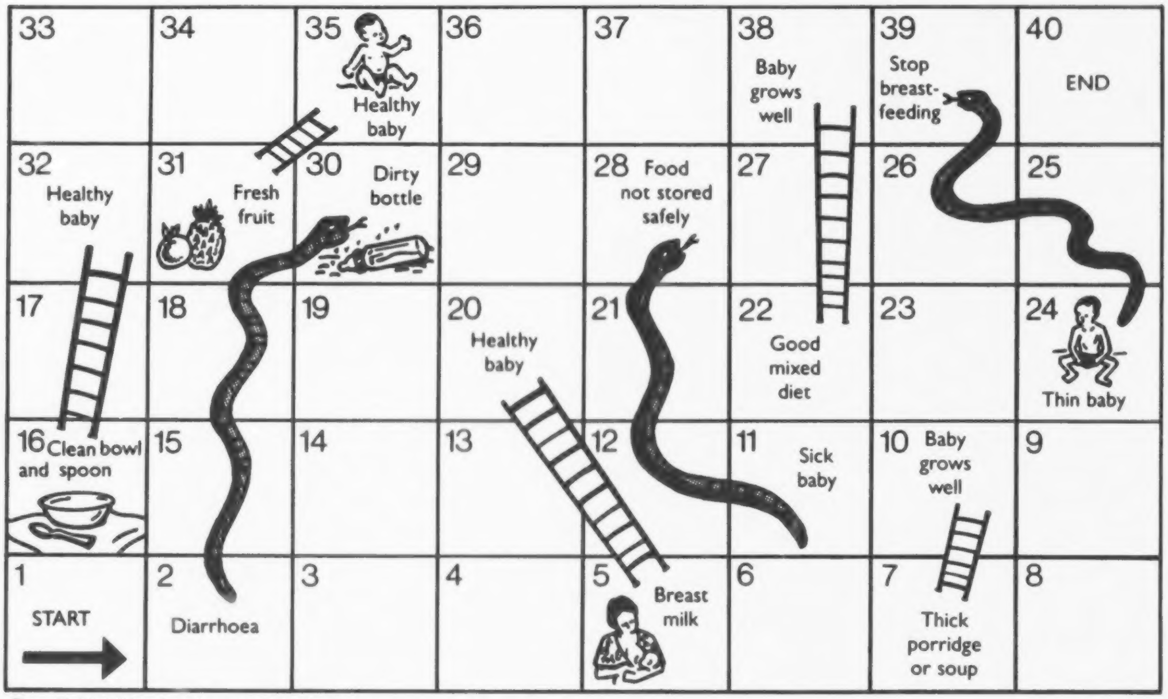

33
34
35 Healthy baby
36
37
38 Baby grows well
39 Stop breast-feeding
40 END
32 Healthy baby
31 Fresh fruit
30 Dirty bottle
29
28 Food not stored safely
27
26
25
17
18
19
20 Healthy baby
21
22 Good mixed diet
23
24 Thin baby
16 Clean bowl and spoon
15
14
13
12
11 Sick baby
10 Baby grows well
9
1 START
2 Diarrhoea
3
4
5 Breast milk
6
7 Thick porridge or soup
8

Fig. 18 Nutrition 'snakes and ladders' game

Nutrition Learning Package 4
FEEDING YOUNG CHILDREN

THIS LEARNING PACKAGE SUPPORTS
MODULE 4: NUTRITIONAL ADVICE ON THE FEEDING OF INFANTS AND YOUNG CHILDREN
In: *Guidelines for training community health workers in nutrition,*
WHO, 1986

Contents

This Nutrition Learning Package contains materials for use in training community health workers to be able to:

- Find out how mothers feed young children.
- Find out what mothers believe about various foods.
- Establish which foods available in the community are useful for feeding young children.
- Find out which foods are cheapest, and how prices vary with the seasons.
- Know what foods, how often and how much to feed young children.
- Prepare and mix local foods to make suitable meals for young children.
- Feed young children with an appropriate diet (and encourage parents to do this).

Materials

4A Feeding a young baby.
4B Planning meals using the multi-mix principle.
4C Using the multi-mix principle for weaning.
4D Making and storing safe weaning foods.
4E Picture recipes.
4F Some ways to store foods to keep them cool and clean.

How to use the materials in Nutrition Learning Package 4

4A Feeding a young baby

These question and answer sheets can be used by trainees for learning on their own, or they can be used to start a group discussion. You could use them before you give a lecture or demonstration on feeding young children to help you find out how much trainees already know. Or you can use them after your presentation to find out what they have learned. In either case, trainees should visit mothers in the community to find out detailed answers to some of the questions. Trainees can keep the completed answer sheet for later reference.

4B Planning meals using the multi-mix principle

This activity introduces a way of planning meals using the multi-mix principle. It is a tool for teaching trainee community health workers to plan nutritious meals. These meals can be used for feeding young children or the whole family, and are good for women when they are pregnant or breast-feeding.

This material can also be used with Nutrition Learning Package 5 — *Nutrition of mothers.*

Read the information through carefully. If you think it would be a helpful way to present nutrition information to the trainees ask them to write their own ideas in the spaces provided, and demonstrate how to make nutritious meals using a variety of foods by cooking a meal. After the demonstration hold some workshops in which the trainees can practise making multi-mix meals, and adapting them for feeding children of weaning age.

The group can make posters, flip charts, flannelgraphs and other aids to help them teach mothers to plan meals. Adapt the pictures and use local names and examples of foods.

If your Ministry of Health uses another way of grouping foods, and has learning aids to help teach it, you may prefer to use that grouping.

4C Using the multi-mix principle for weaning

This material applies the multi-mix principle to feeding weaning-age children and gives ideas for feeding children of 4-6 months, 6-12 months and 1 year and over. Present the information to trainees through demonstration, discussion and/or a lecture. The material can also be kept by trainees for use later.

4D Making and storing safe weaning foods

This material gives points on how to prepare good and safe weaning foods at home. Go through these with trainees, who can then discuss how best to adapt and present the points to mothers. For example, trainees should find out what things are already done in the community to keep food safe. They should then think about what changes should be made and discuss whether it is possible for mothers to make these changes.

4E Picture recipes

This material describes how to make a picture recipe, and how to carry out a cookery demonstration using the picture recipe. Preparing mashed papaya is used as an example, but the picture recipe method can be adapted for any meal.

First get trainees to practise in the training group, following the sample procedure. Ask each trainee to develop one picture recipe and to present it to the group through demonstration. Trainees can then discuss their recipes and share them. Each trainee can make a set of recipes for future use.

Then arrange for the training group to use their picture recipes with mothers in the local community, at the clinic, in the health centre, or in another good meeting place.

Hold a follow-up discussion with trainees to evaluate the usefulness of the picture recipes and demonstrations.

4F Some ways to store foods to keep them cool and clean

In this material several ways to store food are described. Get trainees to discuss the storage methods used in the communities with which they are familiar. Find out what methods are used in the community where your training course is being carried out. Ask trainees to discuss whether people should be encouraged to make changes in the way they now store foods, and if so, what changes they could make.

4A Feeding a young baby

Breast milk is the best food for a baby from the time of birth until two years of age. However, when the baby is four or five months old he or she also needs soft foods. The baby is growing bigger, and needs other food as well as breast milk. A mother should feed her baby soft foods two or three times a day. A mother should continue to breast-feed her baby as breast-feeding is good for the baby. This change for a baby from being fed only breast milk, to being fed both breast milk and other foods, to finally eating only other foods, is called weaning.

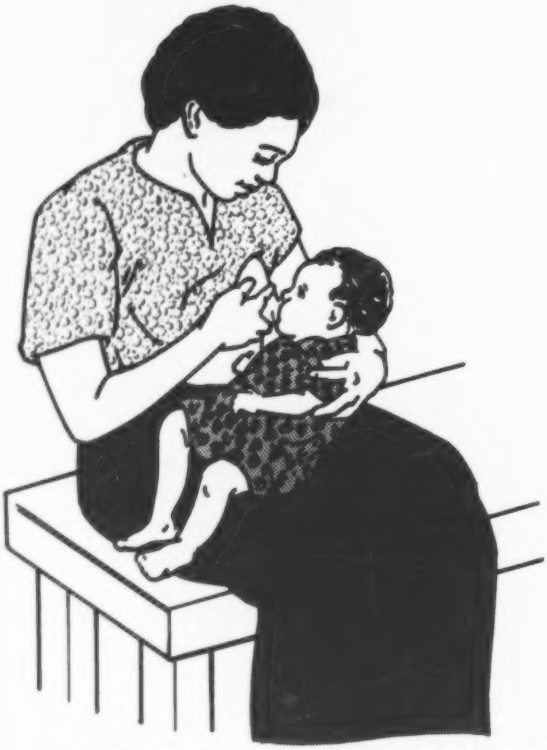


Fig. 19 Breast milk is the best food for a baby up to the age of two years

Questions

1. What soft foods do mothers in your community give a young baby at first?

If you are working in a group, discuss foods available in the community that are good for a young baby.

2. What foods do mothers say are not good for a young baby? What foods do mothers not give a baby who is only four or five months old?

3. Make a list of foods that a mother can feed to her young baby at different times of the year. Show which foods are cheapest each season; for example, if a food is cheap in the rainy season, mark it with an (R), if a food is cheap in the dry season, mark it with a (D).

   For example: Mango (D)

4. What are good first foods for the babies in your community?

5. How should a mother make the baby's first foods?

6. How should a mother feed these foods to her baby?

Answers

1, 2 and 3 Your answers to questions 1, 2 and 3 will depend on the foods available in your community. You will have found out the answers by talking to local mothers.

4. Breast milk is a baby's first and best food. Until a baby is four or five months old, he or she can only take breast milk. By the time the baby is about four months old, he or she needs other food besides breast milk. The baby has to learn how to eat soft foods. Usually the first soft foods given to a baby are made from the staple foods in a community such as maize, rice or millet.

5. The baby does not need special foods in tins, boxes or packets. A mother should give her baby foods that are available in the house. She should make these foods soft so that her baby can eat them easily. Mixing some milk or water into the food will make it soft. In the beginning the baby will spit out almost all the food. The baby will swallow very little. This does not mean that the baby does not like the food, but that he or she does not know how to swallow food. The baby must learn how to swallow food. A mother should make the food thicker as the baby gets used to eating.

   It may be difficult at first to get the baby to eat the soft food, but mother should not give up. Soon the baby will learn to swallow, and will like the food. It will take one or two months for a baby to learn to eat soft foods. So if a mother starts to give her baby these foods at four months, by the time baby is about six months old, he or she will enjoy eating soft foods.

6. A mother should always feed her baby with a clean bowl (or cup) and spoon. A bowl and spoon are easy to keep clean. On the first day, a mother should try to feed her baby about one tablespoon of food in small amounts. On the second day, the mother can feed her baby a little more. The baby will take some time to learn to eat from a spoon, but soon the baby will be able to eat more and more food with a spoon. When the baby has learned to eat one food, the mother should give him or her another food. Soon the baby will learn to like different foods.

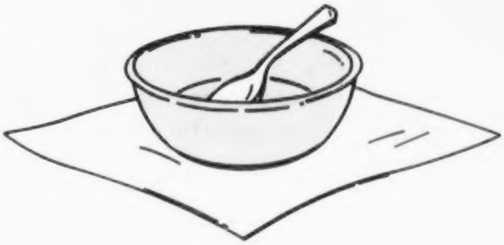


Fig. 20 A clean bowl and spoon should be used for a baby's food

4B Planning meals using the multi-mix principle

There are many different types of foods. To eat a diet that is good for their health, people need to eat a variety of foods. There are many ways to group foods together. One way is described here. The multi-mix principle is about choosing foods from different groups, and putting them together to make nutritious meals.

When you are giving a demonstration always use foods that are available in your community, and when you are talking about foods always use the names that are used locally.

Different types of foods

Staple foods

The staple foods are those that people in a community like to eat and that they can usually afford. The staple foods give people most of the energy they need to live, work and play.

In many countries the staple food is a cereal like rice, millet, maize, wheat or sorghum. A cereal staple not only gives energy but also helps children to grow and develop.

In other countries the staple food is a starchy root or fruit like yam, cassava, breadfruit, green banana or sweet potato. A starchy root or fruit staple food gives only energy. Alone, it will not be enough to help children grow and develop properly. Peas, beans, seeds, nuts or foods from animals should be eaten with a starchy root staple.

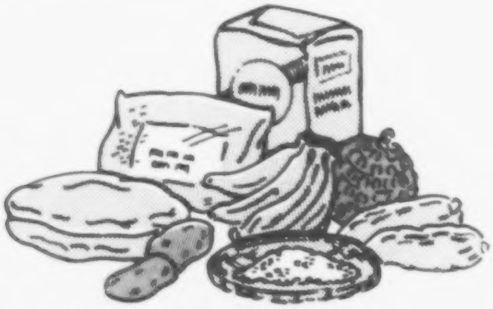


Fig. 21 Some examples of staple foods

List the staple foods that are liked and eaten in your community:

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Peas and beans

These are important foods for growth. When added to the staple food, they help children to grow well. They are also good for pregnant and breast-feeding women who are eating for themselves and to help their unborn or young baby become strong and healthy.

Some of these foods are chickpeas, lentils, dhal, soya beans and red beans. Seeds and nuts, such as sesame seeds, melon seeds and groundnuts, can also be included in this group.

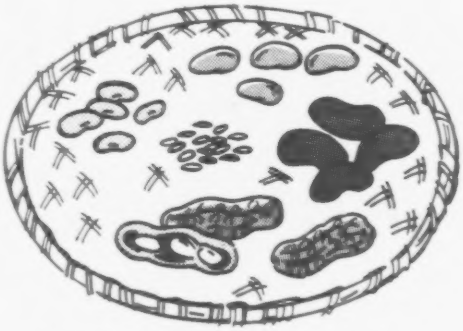

Fig. 22 Some different kinds of peas and beans

List the foods from this group that are liked and eaten in your community:

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Dark green leafy vegetables and orange vegetables

These vegetables are important to keep the eyes healthy. They can also help make the blood rich in iron. Children need these vegetables. So do women, especially those who are pregnant or breast-feeding.

Some of these foods are spinach, pak choi, cassava leaves, many wild dark green leaves, carrot and pumpkin.

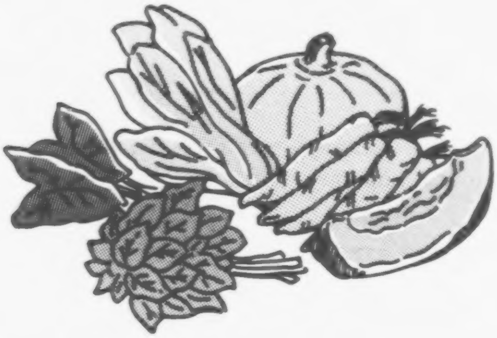

Fig. 23 Dark green leafy vegetables and orange vegetables

List some foods from this group that are liked and eaten in your community:

Foods from animals

Foods that come from animals are important to help children grow and to keep them strong and healthy. However, they are often expensive. Whenever possible, small amounts of these foods should be eaten with the staple food.

Small children and breast-feeding and pregnant women should eat some of these foods with the staple food. They need these foods more than men and older boys do. Eggs, milk, yoghurt, fish, poultry and meat are examples of these foods.

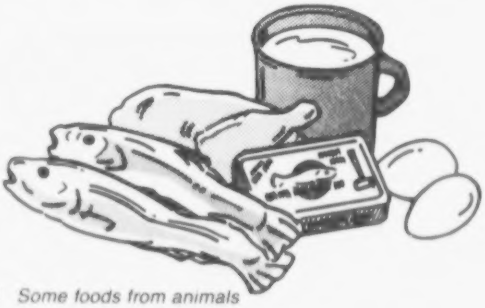

Fig. 24 Some foods from animals

List the foods from animals that are liked and eaten in your community:

Fruits

Fruits are useful for keeping the eyes and skin healthy. They are not always eaten as part of a meal, but are very good as snacks, or to eat at the end of a meal.

Juices of fruits make good drinks for children and for women who are taking iron pills. They help the body use the iron. Pawpaw (papaya), mango, orange, lime, cashew fruit, guava, pineapple, and soursop are examples from this food group.

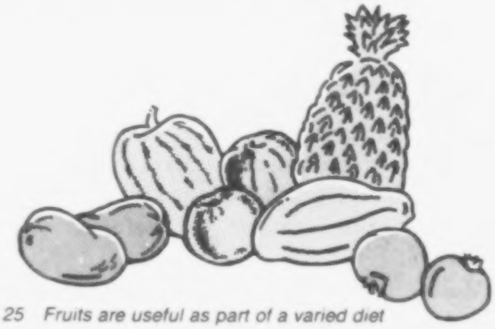

Fig. 25 Fruits are useful as part of a varied diet

List the fruits that are liked and eaten in your community:

Oils and fats

Oils and fats are important foods for young children and for pregnant and breast-feeding women. They make other foods taste good, and are often used for cooking other foods. They make soft foods easier for small babies to eat. Young children need oils or fats to help them grow strong. Cooking oil, groundnut oil, butter, margarine, and lard are examples.

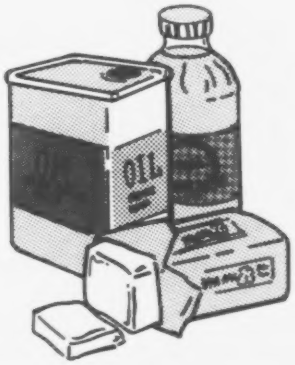

Fig. 26 Oils and fats help young children grow well

List the oils and fats that are liked and eaten in your community:

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Multi-mixes

When trained health workers are helping people learn how to make and eat meals that are nutritious, they talk about types of foods and mixtures of foods. The multi-mix idea can be useful in teaching nutrition.

Most family meals will contain more than one food. It is important that the foods are chosen from the different types of food you have just read about.

Four-mixes

The best meals for health will include foods from each of the four main types of food. These meals are sometimes called four-mixes. They include foods from the following groups:

Staple + peas or beans + dark green vegetables or orange vegetables + foods from animals

An example is:
Maize + red beans + amaranth leaves + chicken

Write here an example of a meal with four different types of foods that you would like to eat:

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Now write an example of this type of meal that people in your community would like and can afford:

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Three-mixes

Good meals can be made with foods from three groups. These are called three-mixes. The foods they include are:

Staple + beans or peas + dark green leafy vegetables or orange vegetables
or
Staple + beans or peas + foods from animals
or
Staple + foods from animals + dark green leafy vegetables or orange vegetables

Examples are:
Rice + dried peas + pumpkin
Plantain + groundnuts + dried shrimp
Cassava + dried fish + dark green leaves

Write here examples of meals using three different types of foods that you would like to eat:

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Now write examples of three-mix meals that people in the community would like and can afford:

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Two-mixes

Meals from two foods are often the cheapest to make. To be good for health, such a meal must always use:

Staple + peas or beans
or
Staple + foods from animals

A meal of a starchy staple food with a dark green leafy or orange vegetable does not give enough nourishment for growth. It is not good enough for babies, young children, or pregnant or breast-feeding women.

Examples of good meals using two food groups are:

Rice + mung dhal
or
Maize + fish
or
Sorghum or wheat porridge + milk

Write some examples of good meals using two different types of foods here:

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- Remember that it is important to eat some foods of each type in as many meals as possible.
- Eat fruits as snacks, or drink fruit juice with a meal, or eat fruit at the end of a meal.
- Use oils and fats in the cooking of other foods.
- Use vegetables such as onions, tomatoes, and peppers to season meals.

4C Using the multi-mix principle for weaning

A baby's first and best food is breast milk. Breast milk alone is enough for a baby for the first four months of life. After four months breast milk alone is not enough to make a baby grow well. Other foods need to be given in addition to breast milk. The process of adding new foods to the baby's diet and gradually reducing the amount of breast milk given is called 'weaning'.

The best foods for children who are being weaned are foods that are:

- **High in energy (calories)**
  Young children need extra energy to grow. Fats, oils and sugar are good sources of this extra energy and should be added to the baby's food. Other foods such as the staple cereal that help the baby to grow and develop must be eaten too.
- **Easy to digest**
  The first new foods a baby eats should be very soft and easy to digest. Later, as the baby's teeth grow and digestive system develops, more solid foods should be added.
- **Pure and clean**
  A baby's foods should be as fresh and clean as possible, because babies catch infections and become ill easily. In homes where foods cannot be kept cold, a baby's food must always be cooked just before the meal.
- **Easy and inexpensive to prepare**
  Many families do not have much money to spend on food. It is a good idea to take out the baby's share of food from the meals cooked for the rest of the family, as this does not cost extra money.
  A child's stomach is small, so he or she cannot eat very much food at one time, and needs feeding more often than the rest of the family. The child is also growing very fast and needs nourishing food several times a day, not just at the family meal times.

How to feed a child of 4 to 6 months

- Breast-feed the baby on demand.
- Start to give the baby porridge or soup. Remember to add some oil or fat.
- Start to add foods from other food groups to the baby's porridge and give the baby multi-mixes.
- Give the baby fruit or fruit juice.

How to make the porridge

The porridge should be thick, and fed from a clean cup or bowl with a clean spoon. Make the porridge from the staple food, for example maize, sorghum, rice or banana. Cook the baby's porridge with milk, or cook it in water and add milk after cooking. You can use any kind of milk, for example breast milk, cow's milk, dried skimmed milk, or goat's milk. Condensed or sweetened milks can be added to the porridge after cooking.

If a soup rather than a porridge is the more usual first food of babies in your country, it should be thick, should contain a mixture of foods, and have added oil, ghee or butter to give the baby energy.

How to feed the porridge to the baby

Give the baby porridge twice a day. Start with two or three teaspoonfuls, then give more, a little at a time. Add oil or fat for extra energy. When a baby is six months old, he or she should be eating thick porridge twice a day.

How to prepare fruit or fruit juice

A baby can have any fruit, for example mango, orange, grapefruit, guava, ripe banana or papaya. Mash the fruit with a clean fork, or make juice from squeezing the fruit.

How to feed the fruit or juice to the baby

Feed the baby with the juice or mashed fruit from a clean cup or bowl with a clean spoon. Start with two or three teaspoonfuls, then give more, a little at a time. By the time the baby is six months old he or she should be having about half a cup of juice or mashed fruit every day.

Multi-mixes for babies

Just as the family meals should contain foods of different types, so should the baby's meals. Foods should be finely mashed or minced, and added to the porridge, to make these meals.

Two-mixes for the baby

Example: Rice porridge + breast milk

Write here examples of two-mixes for a baby:

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Three-mixes for the baby

Example: Potato + kale + chickpea flour

Write here examples of three-mixes for a baby:

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Four-mix meals for the baby

Example: Maize + peas + pumpkin + meat

Write here examples of four-mixes for a baby:

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How to make a baby's food from the family pot

- Take out the baby's food before adding hot pepper, curry or any other strong seasoning.
- Mash the food by rubbing it through a clean strainer with a clean spoon.
- When giving the baby fish or meat, cut it into small pieces and take out all the bones.
- Soften the baby's food with oil, butter or margarine, or a little water or gravy from the cooking pot. Always feed the baby from a bowl or cup with a spoon.

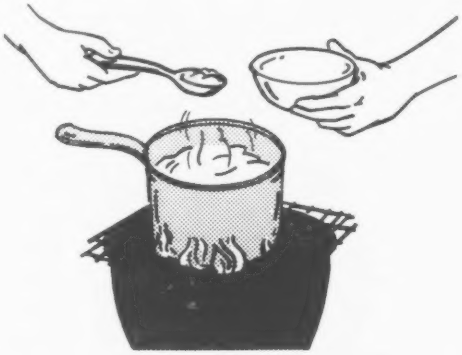


Fig. 27 The baby's food is being taken out of the family pot

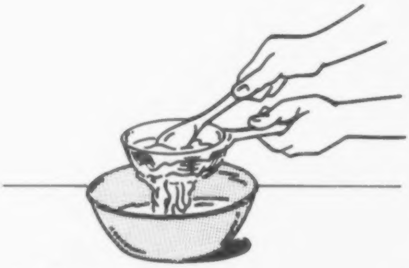


Fig. 28 The baby's food is being mashed

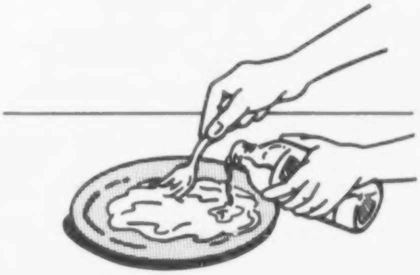


Fig. 29 The baby's food is being softened to make it easier to eat.

A guide to feeding a baby of 4–6 months

Breast-feeding is important up to one year old or even older. Very young babies should be given breast milk as often as they will take it. Babies fed 'on demand', i.e. whenever they cry or seem hungry, may feed as many as 12–15 times in 24 hours. By the time they are about four months old most babies will have a routine of being breast-fed 5–10 times in 24 hours.

Here is an example from one country of what a mother can give her baby. Breast milk should be given 'on demand' as well. You may be able to think of other examples. If so write them in the space provided below.

• Early morning	Breast milk
• Breakfast	Fruit juice or mashed fruit
• Mid-morning	Thick porridge or soup
• Lunch	Thick porridge or soup
• Evening	Breast milk
• Bedtime	Breast milk

Write your own examples here:

A guide to feeding a baby of 6–12 months

This is an example from one country. You will be able to think of other examples. Write them in the space opposite. Don't forget that breast milk should be given on demand as well.

• Early morning	Breast milk
• Breakfast	Juice or fruit, plus thick rice porridge or soup
• Mid-morning	Milk or yoghurt drink, plus bread
• Lunch	Rice and fish with a dark green leafy vegetable
• Afternoon	Fruit
• Evening	Rice and lentils
• Bedtime	Breast milk

Write your own examples here:

How to feed young children of one year old and over

By the time a baby is one year old she or he should be eating all kinds of food. The baby needs three main meals every day – one at breakfast time, one at midday and one in the evening. Between these meals the baby also needs other foods because he or she is growing fast. The baby can eat the family's meals from the family's pot.

Help the child to feed himself or herself. Make sure that the baby does not waste the food, or he or she will not get all the nourishment needed. The baby should eat with the rest of the family, and should eat plenty of the staple food, some meat, fish, egg or peas and beans, and some vegetables. Be sure the child does not eat only the gravy or sauce.

A guide to feeding a child of one year old or more

This is an example from one country. There is a space below where you can write examples from your own country or community. Don't forget that breast-feeding can still continue on demand.

• Early morning	Juice or fruit
• Breakfast	Sardine fritter with milk
• Mid-morning	Crackers with milk
• Midday	Porridge made with milk and cereal, mixed with brown sugar
• Afternoon	Fruit

• Evening	Sweet potato, spinach and mackerel, lemonade
• Bedtime	Milk

Write your own examples here:

How to feed a young child during an infection or illness

When a child is sick or has an infection, he or she needs more food than usual. The food must be more nourishing than usual so the body can fight the illness. Encourage the mother not to stop giving certain foods during illness.

Milk is a good food for sick children. Breast milk is the best food for sick babies. A mother should never stop breast-feeding when a baby is sick. If the baby cannot suck, the mother can squeeze her breast milk out of the breast into a clean cup and feed it to the baby with a clean spoon. If the baby is not sucking the breast regularly, and the milk is not squeezed out, the milk may dry up.

Sometimes a sick child may not want to eat. The mother should try very hard to encourage the child to eat. She should give the child foods that are easy to swallow like thick porridge or bread soaked in milk. She should give the child some yellow or orange vegetables, some fruits like pawpaw and mango, some soft cooked dark green leafy vegetables, and plenty of fluids. Sick babies need plenty of love and care. They need coaxing to eat.

When children have infections they need good nourishing food. Remember, malnutrition makes infection worse and infection makes malnutrition worse.

When the child is better, feed him or her extra food. The child should take enough extra food after the illness to make up for the food not eaten during the illness and to build up the child's strength again. If the child is hungry, feed him or her.

4D Making and storing safe weaning foods

Home-made weaning foods can become infected with germs. Then the weaning food will make the baby ill with diarrhoea.

Here are some ways to help families make sure that the foods they feed to the baby are safe. Encourage families to:

- Choose fresh and good quality food whenever possible.
- Protect food from insects, rats, germs and poisons.
- Let the baby eat the food soon after cooking, immediately it cools.
- Store cooked weaning foods either very hot or very cold, and reheat them thoroughly.
- Keep containers and surroundings clean.
- Wash hands repeatedly.
- Use clean water.
- Keep equipment and utensils clean.

Choose fresh and good quality food whenever possible

- Cereals and peas and beans should not have dirt, stones or weevils in them. They should not be damp or mouldy.
- Fresh fruits and vegetables should not have wilted, or be bruised or shrivelled. Wash them well in clean water before cooking them.
- Meat and fish should smell fresh. They should not be dark brown or green in colour.
- Poultry should smell fresh.

Protect foods from insects, rats, germs and poisons

- Store foods in clean covered containers to keep out insects.
- Store meat, fish, poultry, fruits, vegetables, milk, butter, margarine and leftovers in a cool place. Use them up quickly.
- When possible store dry foods in well ventilated cupboards.
- Keep insecticides, pesticides, disinfectants and other household chemicals away from food. Label the containers with the name of what is inside, before putting them away.

Let the baby eat the food immediately it cools

Freshly cooked food is safe from germs, but germs can invade food and multiply on it very quickly. In hot weather food is already dangerous if kept for more than two hours. It is therefore best to cook the weaning mixture until it is very hot each time you are about to feed the baby.

- Treat cooked food with care. Give multi-mix meals to children as soon as possible after the meal has been cooked. Do not let meals stand for hours at room temperature.
- Mothers who do not have a means of refrigerating food should make weaning foods fresh for each meal.

Store cooked weaning foods either very hot or very cold, and reheat them thoroughly

If a family has a refrigerator, cooked weaning food can be stored for some hours there. It must then be heated up thoroughly and then cooled before being fed to the baby. It is not good enough just to warm it.

If the family has a fire burning all the time the food can be kept hot for some hours. It is not enough to keep it only warm — germs love warm places. The food must be too hot to handle.

For families who cannot manage this:

- Keep the weaning mixture as cool as possible (see page 86).
- Keep the weaning mixture covered.
- Cook weaning mixture in small quantities and often.
- Thoroughly heat the weaning food whenever possible.
- During the hot season, when diarrhoea is common, be extra careful.

Keep containers and surroundings clean

- Wash and rinse equipment and dishes before making meals. Protect them from flies, insects and dust.
- Keep animals out of the kitchen if possible.

- Scrub tables, cutting boards and work surfaces with soap and water after preparing foods. Use hot water if this is possible.
- Put waste in a covered bin or bury it at a distance from the house. Uncovered rubbish attracts flies and other insects and pests.

Wash hands repeatedly

Remind the mother:

- To wash her hands before handling food, dishes and eating utensils, before eating, and before feeding the baby.
- To wash her hands after using the toilet, cleaning the baby or touching someone who is ill.
- Not to make the baby's food if she has infected sores, cuts or burns on her hands or has a fever, cold or infection.

  This does not mean that a mother should not feed her baby. Someone else can perhaps make the food to help the mother. Or, if the mother must make the baby's food, she should wash her hands well before making it.

Use clean water

- If a piped water system is not available, collect water from a covered well or spring.
- Store water in covered containers.

Keep equipment and utensils clean

Expensive special equipment is not needed to make safe weaning foods at home. Some of the following things are useful and often a mother already has these in her home.

- A sieve or strainer with small holes. This is good for removing the skins from cooked peas or beans, for making fresh fruit juices and for making smooth mixtures from soft fruits, vegetables and cereals. To do these things press the food through the holes in the sieve or strainer with the back of a clean spoon.
- Spoons, forks and knives. These are used to mash soft foods such as ripe soft fruits, cooked rice, eggs and starchy roots and tubers. Knives will scrape and chop cooked meats that do not pass through a sieve easily.
- Mortar and pestle. This can be used for pounding most foods.
- A grater. This can be used for cheese and meats that will not pass through a sieve easily.
- Food mills and grinders. These can be used to mill and grind many different foods, particularly cereals and nuts.

All of these pieces of equipment must be kept very clean.

4E Picture recipes

Picture recipes can be adapted to explain how to make many foods. They are a way of introducing foods that mothers should prepare for their children and helping mothers to know how to prepare these foods at home. Picture recipes can be made for local weaning mixes.

Getting mothers to make their own picture recipes encourages them to be involved in designing educational materials and messages. The pictures of food preparation can be coloured and put on the wall.

It is important to encourage mothers to feed their young children with mashed fruit and vegetables.

The sample below gives instructions on how to prepare a picture recipe and hold a demonstration, using the preparation of mashed papaya as an example.

Sample picture recipe and demonstration

Setting:

A small group of mothers with young babies.

Time:

2–3 hours.

Place:

The clinic, health centre or other suitable meeting place.

Preparation:

You will need paper, pencils, felt pens, crayons and a means of reproducing picture recipes.

1. Think about how you make mashed papaya and decide which steps need to be shown on your picture recipe.
2. Draw pictures of the steps you have chosen. For example:
   Washing the papaya.
   Peeling the fruit and cutting it into small pieces.
   Mashing the fruit with a fork or spoon.
   Adding a few drops of lemon or lime juice.
   Sample drawings of these steps are given on page 85.
3. Get ready the utensils and equipment you will need for the demonstration, and some extra spoons so that mothers and babies can taste the food.

Procedure for the demonstration:

1. Explain to the mothers what you will prepare and what utensils are needed.
2. Wash the fruit under running water and ask mothers why this is important.
3. Carefully peel the fruit and cut it into small pieces.
4. Mash the pieces of fruit with a fork or spoon.
5. Give each mother a copy of the picture recipe you have prepared to take home.
6. Ask mothers if they feed fruits and vegetables to their babies and, if so, when their babies are at what age. Ask what kinds of fruit and vegetables are available locally. You could also talk about why an infant needs fruits and vegetables to be healthy.

Sample picture recipe: mashed papaya

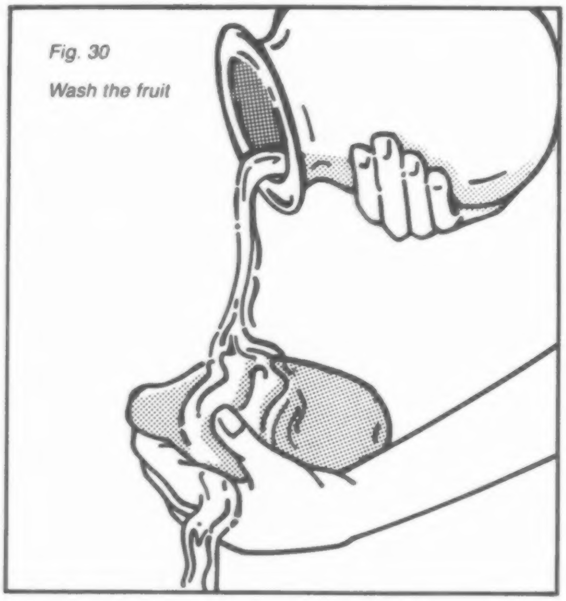


Fig. 30

Wash the fruit

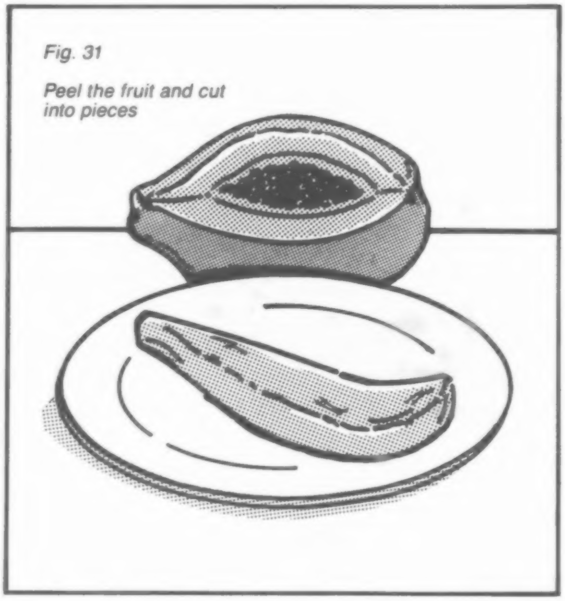


Fig. 31

Peel the fruit and cut into pieces

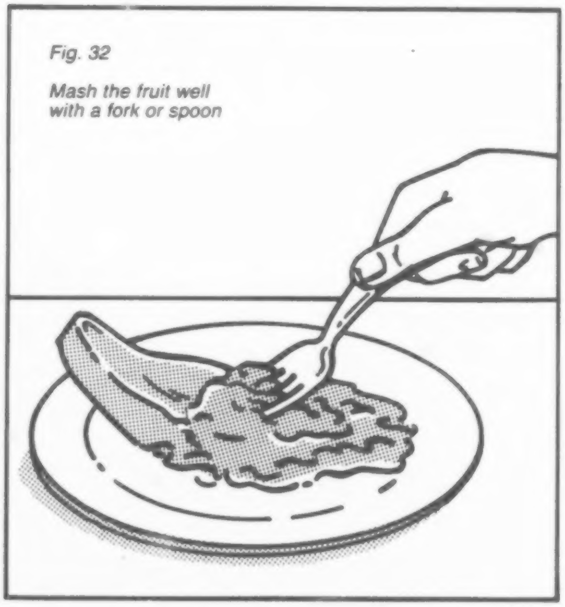


Fig. 32

Mash the fruit well with a fork or spoon

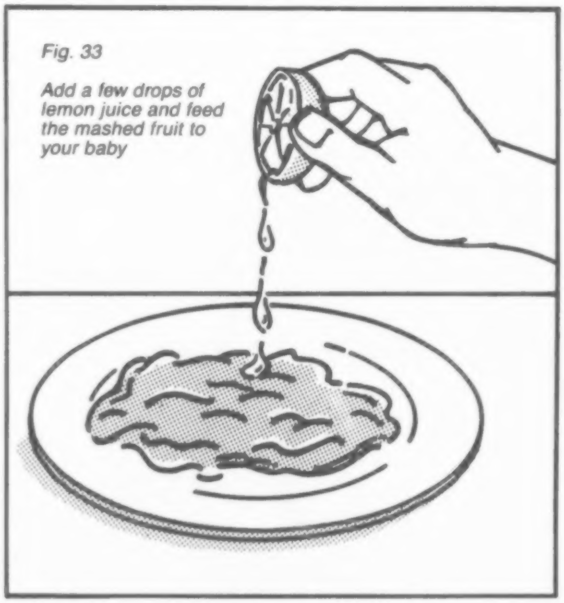


Fig. 33

Add a few drops of lemon juice and feed the mashed fruit to your baby

4F Some ways to store foods to keep them cool and clean

Evaporation (the process by which liquid water turns into vapour) cools things. You can use this principle to keep foods from spoiling. Here are several examples of cooling by evaporation.

Cupboards

A crate or packing case used either on its side or on its end makes a good cupboard for evaporative cooling. Put the crate on bricks to raise it off the floor. Put a container of water on top of the crate and drape sackcloth or other coarse material over the bowl, and around the crate so that it does not quite reach the floor. The cloth should dip into the water in the bowl. Place the food to be cooled inside the crate. The cloth will get wet and the water held in it will evaporate, cooling the air and food in the crate.

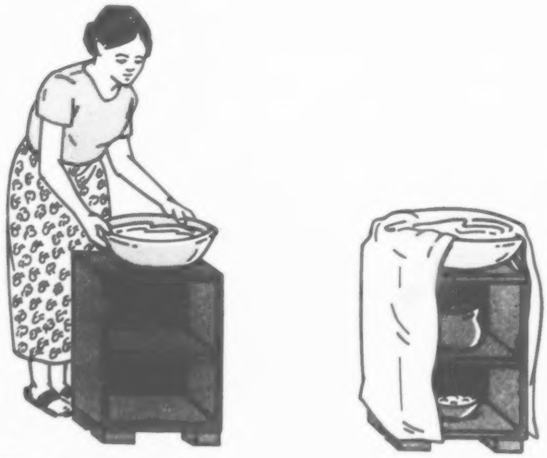


Fig. 34 A crate cooler

Pottery

A double-pot cooler has been developed in India. It is made of a small pot inside a large pot. The space between the two pots is filled with water. The outer pot and the lid are non-glazed to allow the water to evaporate. The inner pot is glazed on the inside to stop water seeping into stored foods.

To use the double-pot cooler, soak the outer pot and lid in water until they are wet through. Then pour enough water into the outer pot to fill the space between inner and outer pots. Put the food to be cooled into the glazed inner pot, and place this in the outer pot. Check that the space between the pots is filled with water and cover with the lid.

A simple cooler can be made using a plant pot and base. Place a brick in the plant pot base, and then fill the base with water to a level just below the top of the brick. Put the food to be cooled in a container and put the container on the brick. Soak the plant pot in water until it is wet through and place it upside down over the brick and food container so that it is standing in the water.

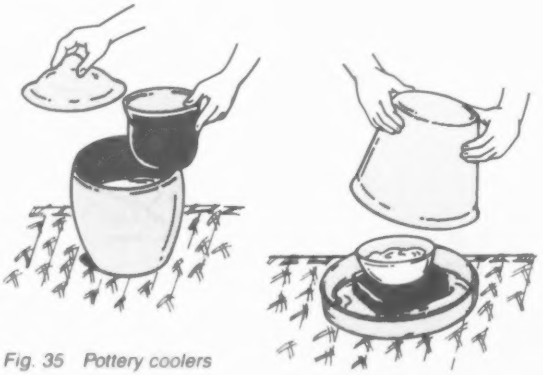


Fig. 35 Pottery coolers

Baskets

A basket loosely woven from split bamboo, slender wood or raffia makes an excellent cooler. Place the basket on stones or bricks in a low container of water. The water container may be round or square and may be either earthenware (pottery) or metal. Drape sack-cloth, or other coarse material, around the basket and allow it to hang down in the water. Place food to be cooled in containers in the basket. Several containers of food may be stored on top of each other. Cover the basket with a lid. Remember to keep the water container filled with water, and to dampen the covering cloth from time to time.

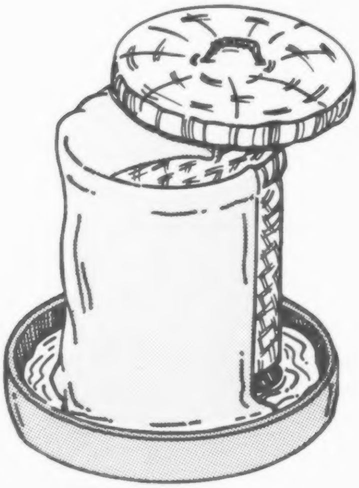


Fig. 36 A woven cooler

Keeping food clean — food covers

To make a cover to protect food against insects, stretch mosquito netting or wire screening on a lightweight frame made of pliable wood, bamboo or light metal wire.

Bend a piece of light wood, bamboo or wire into a circle to make the base and tie the ends together. Bend two more pieces of the same material, and tie them to the base circle as shown in the picture. They make the top of the food cover. Stretch netting or screening over the top and sew it down strongly on to the base and two top pieces. This food cover will keep flies off food and utensils.

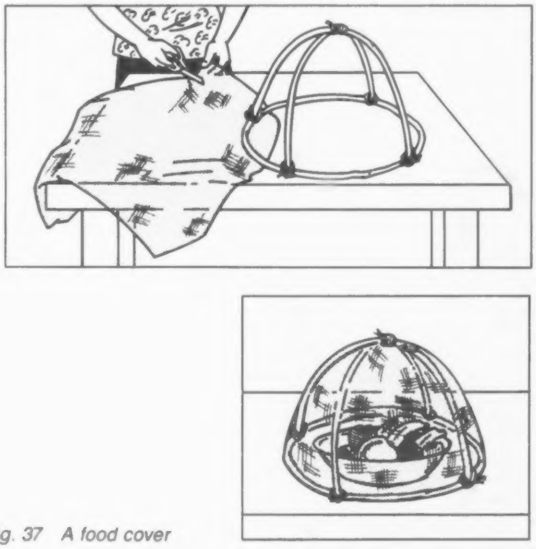


Fig. 37 A food cover

Nutrition Learning Package 5

NUTRITION OF MOTHERS

THIS LEARNING PACKAGE SUPPORTS
MODULE 5: NUTRITIONAL CARE OF MOTHERS
In: *Guidelines for training community health workers in nutrition,*
WHO, 1986

Contents

This Nutrition Learning Package contains materials for use in training community health workers to be able to:

- Collect information on what people believe and do about eating during pregnancy and breast-feeding.
- Explain to pregnant women and mothers the importance of eating well.
- Identify women at risk of malnutrition and anaemia and take appropriate action.

Materials

5A Nutrition during pregnancy and breast-feeding.

5B Food habits chart.

5C Good care begins before a baby is born.

5D How to identify undernourished pregnant women.

How to use the materials in **Nutrition Learning Package 5**

5A Nutrition during pregnancy and breast-feeding

This material summarizes important points. After a lecture or discussion, the material could be given to trainees for future reference. The materials in Nutrition Learning Package 3 — *Breast-feeding* will be useful here, as will Material 4B — *Planning meals using the multi-mix principle.*

5B Food habits chart

This material gives instructions on how to make and use a food habits chart.

The chart is used as the basis for a group activity to help trainees find out what pregnant women and other people in the community usually eat. Use it first with the trainees themselves. The chart can also be used with groups of pregnant women or with the whole community to look at food habits.

5C Good care begins before a baby is born

These question and answer sheets on the nutrition of mothers can be given to trainees to be used as a self-test. The questions review information already learned. The questions alone can be given as a test to help the trainer assess trainees' learning. In either case, the questions and answers should be used by the trainer in a group discussion with trainees. To answer questions fully, trainees can make some home visits to see what mothers in the community really do eat.

5D How to identify undernourished pregnant women

This material gives trainees a summary of ways to identify the women who are at greatest risk of malnutrition. After you have presented the topic using information sources such as Module 5 of *Guidelines for training community health workers in nutrition,* WHO, 1986, use the summary for group discussion.

5A Nutrition during pregnancy and breast-feeding

Pregnancy is an important time in a woman's life. It is the time when a baby grows inside her body. To grow properly this unborn child needs a healthy and well-nourished mother. A woman who is pregnant needs more food than at other times because she needs extra energy for the baby growing inside her. At this time a pregnant woman needs more food than other adults do.

People who are working hard need more energy, and more food, than people who are not working hard. If a pregnant woman is working hard, she will need a lot of food for energy. She needs the food for the baby, and to do the hard work. If there is not much food available for the family, it will be a problem to get enough for the pregnant woman.

If the mother can work less hard and eat more food, the energy from the food will help the baby grow strong and healthy. A busy mother should get some rest every day. She should not do very heavy work or carry very heavy loads.

A person who works hard in the fields or in a factory, and who does not eat enough food to give all the energy needed to do the work, will lose weight. Soon he or she will not be able to work hard. A pregnant woman who does not eat enough and who still has to work very hard is in danger. She may have a small baby who does not grow well and who is often ill, and she may become ill herself.

Weight gain in pregnancy

A woman should gain at least 11 kg during pregnancy. The baby accounts for only part of this weight gain. The mother's own body must make the extra blood, muscle, fluids and tissue that are needed for the baby's development.

A pregnant woman needs to gain weight during pregnancy to nourish her growing baby. Women who do not gain enough weight often have babies that weigh too little. A baby who weighs less than 2 kg may not grow well, and may suffer more than other babies from illnesses like diarrhoea.

How much weight should a pregnant woman gain?

Weight	*Where the weight goes*
3.3 kg	The baby
0.7 kg	The placenta (afterbirth)
1 kg	The uterus (womb)
4 kg	Blood and fluids
2 kg	Changes in the body ready for breast-feeding

Total: 11 kg

When should a pregnant woman gain weight?

When and how fast a woman gains weight during pregnancy is just as important as the amount of weight she gains. A pregnant woman should gain weight smoothly and steadily. If her weight increases suddenly she should see a doctor.

During the first 3 months she should expect to gain about 1–2 kg. During the last 6 months, she needs to gain a bit less than half a kilogramme each week, so that by 9 months she has gained about 11 kg.

If she has already gained 11 kg after 6 or 7 months of pregnancy, she should continue to gain moderately until delivery. The baby puts on most of its weight during the last 2 or 3 months.

What should a woman eat when she is pregnant or breast-feeding?

A pregnant or breast-feeding woman needs to eat good foods. She should eat meals that contain a mixture of foods. She does not need to buy special or expensive foods. She can get the extra food she needs by eating a little more of her usual meals if these meals are nutritious.

What makes a nutritious meal?

When a meal contains a mixture of different foods, it is usually nutritious. Health workers often call this kind of meal 'well balanced.' This means it contains some of each of the many things the body needs to give it energy, strength and health. Sometimes it is helpful to group food into types, to teach people how to make their meals well balanced. It is best to start with the foods that are commonly eaten in a community. These foods are usually well liked, and easy to grow or buy. The main types of food, and how to put them together to make healthy meals, are described in Material 4B — *Planning meals using the multi-mix principle.*

When people have enough money, they usually eat meals that contain foods of many different types. When people do not have enough money, or when food is very scarce, it is important for community health workers to know how to make good use of what food there is.

How to prevent nutritional anaemia in pregnancy

Some women feel weak and tired when they are pregnant. They may be anaemic. That is, their blood may be 'weak' and lacking in iron. If pregnant women are anaemic, they may have difficulties in pregnancy and childbirth. Babies of anaemic mothers can be born without the 3 to 6 months' supply of iron that a normal, healthy, full-sized baby should have.

A pregnant or breast-feeding woman should have enough iron in her blood to keep herself and her baby healthy. Every day pregnant and breast-feeding women should eat foods that have plenty of iron. A fruit drink taken with meals helps the body to use the iron from the food.

How can you tell whether a woman is anaemic?

It is hard to be sure unless the woman's blood is checked to see whether there is enough haemoglobin (the substance that gives blood its red colour, and that is made with iron). See Material 6E — *Checking for anaemia* in Nutrition Learning Package 6.

A woman should visit the antenatal clinic as early in her pregnancy as possible, but at the latest by the time she is 4 months pregnant. At the clinic her blood may be checked. She should be given iron pills to help her body build strong blood for her and her baby. It is very important that she takes the pills as she is told. It is a good idea for her to take the pills during a main meal, or very soon afterwards. She should not take the pills with tea, with coffee, or with milk. These drinks stop the body from using the iron properly. She should take the iron pills with an acid or sour fruit drink like orange or lime juice.

If a woman tells you that the iron pills upset her stomach or make her feel sick, you should encourage her to keep on taking them. After a short time her body will get used to the iron. Then the pills will not affect her. Remind her that her body needs the iron to help her and her baby grow strong.

5B Food habits chart

This chart is a tool to help community health workers find out what pregnant women eat. The purpose is to involve pregnant women in an analysis of their own eating habits, and to present this information in a simple pictorial way to make discussion easy. The community health worker can lead the discussion so that mothers discuss what improvements need to be made, and how these improvements might be achieved.

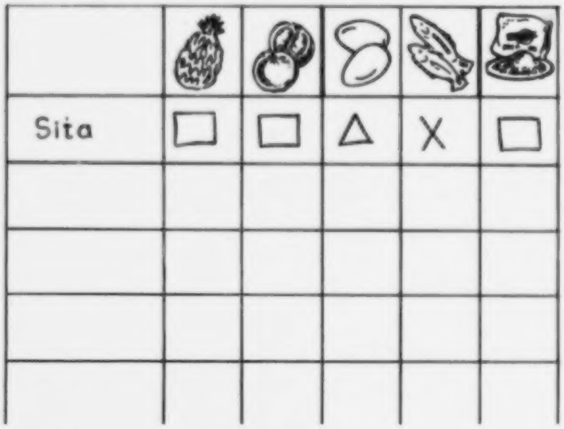


Fig. 38 A food habits chart

What materials do you need?

- A large chart drawn like the example in Fig. 38. When you are making your chart use pictures or drawings of foods that are available in the community, for example rice, yams, fish, eggs, chicken, groundnuts, green leafy vegetables, coconut, oranges and avocados.
- Symbols, cut out of paper, in three different shapes or colours to show whether the woman eats a particular food usually, sometimes or never. For example:

  ☐ = usually △ = sometimes X =never

- Paper labels on which to write the women's names (if the chart is to be reused).
- Sticky tape, or pins to fasten their name labels and symbols to the chart.

How do you carry out the activity?

Alternative 1

Ask for 10 volunteers from the group and interview each of them individually so that they do not influence each other's answers. Ask each woman how often she eats each of the foods at the top of the chart. Place the appropriate symbol (usually, sometimes, or never) in each column across from her name.

Alternative 2

If there is not enough time for individual interviews, conduct a group interview. Do this one food at a time, asking each group member in turn whether she usually, sometimes, or never eats that food, and placing the appropriate symbol across from her name. To reduce the tendency for a woman to be influenced by other women's answers, stress to the group how important it is to get accurate information for discussion.

Alternative 3

The chart can also be used to conduct a group discussion on the community's eating habits. Rather than interviewing individuals about their own eating habits, ask the group whether or not people in the community eat each type of food. Ask about the community as a whole first, then about certain special groups, for example, pregnant women, mothers who are breast-feeding, children aged 6 months to 2 years, and children from 2 to 5 years. If some groups of individuals eat certain nutritious foods, while others do not, ask why. If cost is given as a reason, ask the group how this might be overcome. Using foods from home gardens, or substituting nutritious foods that are easily available locally, will make foods cheaper. If certain groups of people do not eat certain foods because of traditional or superstitious beliefs, try to examine the reasons behind those beliefs with the group. Only discourage beliefs and traditions that are harmful, i.e. that stop people eating nutritious foods. Some beliefs are neutral or even helpful.

Discussion

After interviewing the individuals or the group, ask the group to examine the finished chart and discuss what it shows:

- What kinds of foods do most people eat?
- What foods do only a few people eat?
- What foods are never eaten by some people?
- What are the reasons why some people do not eat certain foods? (The issues of availability, cost, traditional beliefs and taste preferences should be discussed.)

The group will now be quite receptive to a short presentation and discussion on nutritious family diets. Take care that the sample foods discussed are inexpensive, and easily available or produced locally. The group should then discuss what individuals, and the whole community, can do to improve the eating habits of people in the community.

5C Good care begins before a baby is born

Questions

1. Good care begins before the baby is born. What does this mean?

2. What foods do pregnant women in your community eat?

3. Can you think of any foods that pregnant women in your community do not eat? Why do they not eat them? Fill in your answers in the spaces below.

Foods pregnant women do not eat	Reasons why

4. Do women in your community eat more food when they are pregnant? How much more do they usually eat? Do they eat enough to make sure that they have healthy babies?

5(a). What foods are good for pregnant women to eat? Make a list of foods that grow or that are available in your community.

5(b). Make a list of foods that are available in your community at different times of the year, for example, in the dry or wet seasons, or at harvest time.

6(a). What foods do you think a pregnant woman in your community should eat in order to have a healthy baby?

6(b). Are any of these foods ones that pregnant women do not usually eat? If yes, which ones?

7. What care does a pregnant woman need? Who can provide the care she needs?

Answers

1. Good care before the baby is born means that a woman must eat enough food when she is pregnant. Good care also means a woman should take care of her health so that her baby grows well inside her.

2, 3 and 4. The answers to these questions will be different in different communities. It is important to remember that, when she is pregnant, a woman needs to eat more good food than at other times. A pregnant woman needs food for herself and food for her baby. If she eats enough food, her baby will grow strong and healthy.

If pregnant women do not eat some foods, you should find out why. Are the foods too expensive? Are there taboos about eating these foods? How can a community health worker encourage a pregnant woman to eat the good foods she needs?

5. The detailed answers to this question will vary from community to community. However the general ideas will always be the same. A pregnant woman does not need special or expensive foods. She should eat good foods that are available in her community. A pregnant woman should eat more of the good foods she normally eats. A pregnant woman who feels weak and tired may be in danger at the time of delivery, because she does not have enough iron in her blood. She needs to take iron tablets every day to give her plenty of iron in her blood. A pregnant woman should visit the health centre regularly. The health worker at the health centre will give her iron tablets.

6. It is usually cheaper to eat more of the foods that grow in the community, that are plentiful at certain seasons. List and discuss the foods that are good, easy to get and cheap in your community. Also list and discuss foods that pregnant women do not eat, and give reasons why.

7. A pregnant woman needs the care and support of her family, her friends and the community. As a community health worker you can also provide the support that a pregnant woman needs.

As a community health worker you should see a pregnant woman regularly. You can help her in many ways.

You can share what you know about pregnancy and childbirth with pregnant women in your community. You can also share ideas on what to eat and what problems to watch out for. You can help a woman to care for herself and her baby during pregnancy, and to prepare for the birth of the baby.

5D How to identify undernourished pregnant women

There is no sure way of telling which women in your community are undernourished during pregnancy, but there are some ways of telling which women are likely to be undernourished. For example, you should look for:

- Women who are at high risk:

  Women from poor families who are unemployed and have no land.
  Women who are widows or have been deserted by their partners.
  Women who have given birth to many babies over a short period of time.
  Women who are ill with diseases like tuberculosis.
- Women who look thin and depressed.
- Mothers whose previous babies have been small and malnourished.

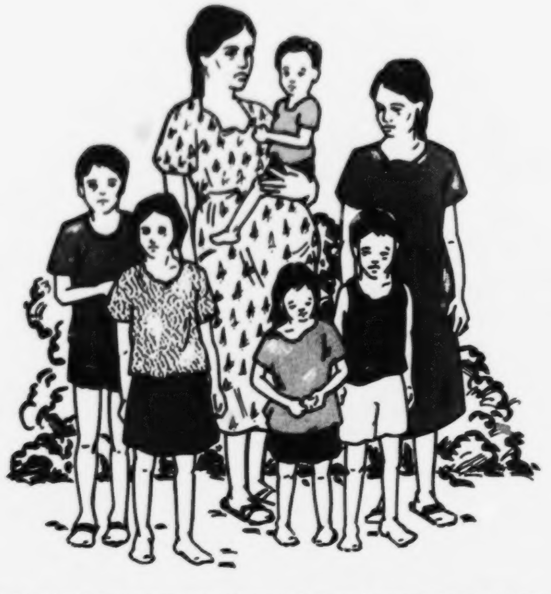


Fig. 39 This woman has many children and is very thin. The family has no land on which to grow food. How would you try to help this woman?

All women whom you suspect are malnourished need extra help. This is what you can do:

- Visit them often.
- Encourage them to eat as good a mixture of foods as they can afford.
- Let them be the first ones to receive iron or other food supplements when available.

Checking for anaemia

Anaemia is one of the most common problems for pregnant women and breast-feeding mothers. It may also be a problem for both children and adults in areas where there is hookworm or malaria. Health workers may therefore want to consider checking for anaemia as part of their nutrition survey. You will find Nutrition Learning Package 6, Material 6E – *Checking for anaemia,* and Module 5 of *Guidelines for training community health workers in nutrition,* WHO 1986, useful.

Nutrition Learning Package 6
NUTRITIONAL DEFICIENCIES

THIS LEARNING PACKAGE SUPPORTS
MODULE 6: IDENTIFICATION, MANAGEMENT, AND PREVENTION OF
COMMON NUTRITIONAL DEFICIENCIES
In: *Guidelines for training community health workers in nutrition,*
WHO, 1986

Contents

This Nutrition Learning Package contains materials for use in training community health workers to be able to:

- Recognize children suffering from protein–energy malnutrition, and take appropriate actions.
- Explain the causes of protein–energy malnutrition to parents.
- Identify children at risk of developing protein–energy malnutrition, and advise parents on how to avoid this.
- Encourage the parents of children who have moderate protein–energy malnutrition to feed their children better.
- Identify children who have anaemia, or who are at risk of developing anaemia, and take appropriate actions to treat or prevent this condition.
- Identify children who have vitamin A deficiency, or who are at risk of becoming deficient in vitamin A, and take appropriate actions to treat or prevent the deficiency.

Materials

6A How can you tell whether a child is becoming weak and thin?
6B Why do children become weak and thin?
6C Making sure a child does not become weak and thin.
6D A community nutrition graph.
6E Checking for anaemia.
6F Checking a child for nutritional blindness.

How to use the materials in **Nutrition Learning Package 6**

6A How can you tell whether a child is becoming weak and thin?

This activity helps trainees practise what they learned about the use of growth charts in Materials 2B, 2C and 2D from Nutrition Learning Package 2.

It may be a good idea to give the questions and answers to trainees as a self-learning tool. Then work in a group (or individually with each trainee) to see how they answered the questions. Alternatively the material can be used in a group and the questions can be asked at the end to see what trainees have learned.

6B Why do children become weak and thin?

Trainees should answer these questions individually first, by observation in the community and by seeking information from community people. Then the answers should be used as the basis of a discussion. Trainees may keep their copy of the material for future reference.

It may be useful to review some of the materials in Nutrition Learning Package 1 at this time. For example Material 1B — *Learning about the community* might be useful.

6C Making sure a child does not become weak and thin

This self-test is a review of what has been learned about young child feeding. Give it first without the answers, to see how much trainees remember. Or give it with answers, and use the completed tests for group discussion. Discuss with trainees how to use the information in their work. The answers to Questions 2, 3 and 4 have pictures. These can be used to make small picture cards, posters or other visual aids for community health workers to use with mothers in the community.

6D A community nutrition graph

This activity stretches over a long period of time. It can be done successfully only when trainees can use and understand growth charts. If your training programme lasts for several weeks, you will have enough time to carry out the activity with trainees in the community where training is taking place. If this is not possible, give trainees the material as a resource. Discuss it as a possible activity for community health workers to carry out in their working communities. If you have a plan for regular in-service training or continuing training for community health workers, it might be good to introduce this activity after they have been working for a time.

6E Checking for anaemia

Most community health workers will not have the equipment to check accurately for anaemia. However, they should know when to suspect it. They should assume that all pregnant and breast-feeding women and young children in a malnourished community are likely to be anaemic. They should encourage mothers to take the iron tablets that are given at the health centre.

6F Checking a child for nutritional blindness

This information can be used as a reminder for community health workers in helping identify children who are at risk of becoming blind from poor nutrition. The information in other Nutrition Learning Packages can be used with mothers to support this material. There is also a colour booklet originally produced by the World Health Organization called *Save your child from nutritional blindness.* This booklet gives helpful pictures and information for community health workers. It has now been translated and produced by many countries. Your Ministry of Health may have copies available for community use. If they do not you could try to encourage them to obtain stocks. They could obtain colour plates from which copies of the booklet can be printed from your WHO Regional Office.

6A How can you tell whether a child is becoming weak and thin?

Even with the care mothers give, some children become weak and thin. A weak and thin child becomes ill very often, and the child becomes more weak and thin because of the illness. By answering the questions below you will learn how children become weak and thin. You will also learn how to recognize children who are weak and thin. The answers are given on page 111.

Questions

1. What does a weak and thin child look like?

2. How can you tell whether a child is healthy?

Look at the children in your community. Find out which children are healthy. Notice the difference between a healthy child and a weak and thin child.

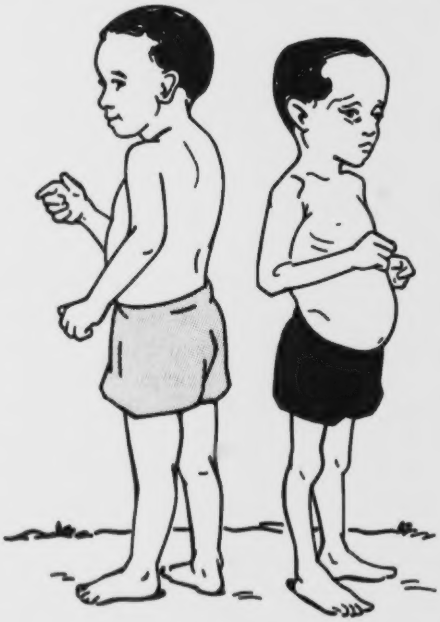


Fig. 40 Which of these children is healthy and happy, and which is weak and thin?

3. Sometimes it is difficult to tell by looking at a child whether he or she is healthy or weak and thin. Look at the picture of two children (Fig. 40). Can you tell which child is healthy and which is weak and thin? How can you tell?

4. What should you do when you want to know whether a child is weak and thin?

5. As a community health worker, you should make sure children in your community do not become weak and thin. How can you do this?

6. List some reasons why some children in your community become weak and thin.

7. How can you use a growth chart like the one in Fig. 41 to see whether a child is growing well?

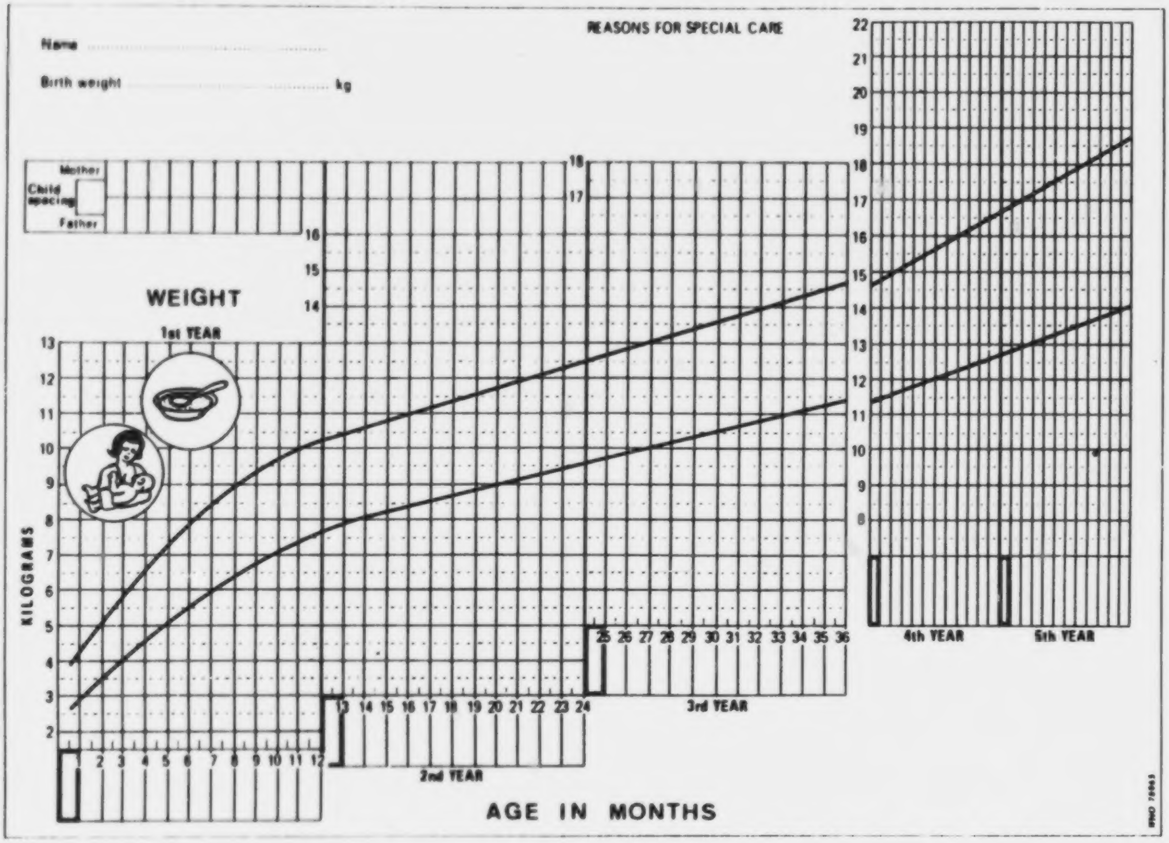


Fig. 41 A sample growth chart

8. Figure 42 shows Thabo's growth chart. Is he growing well?

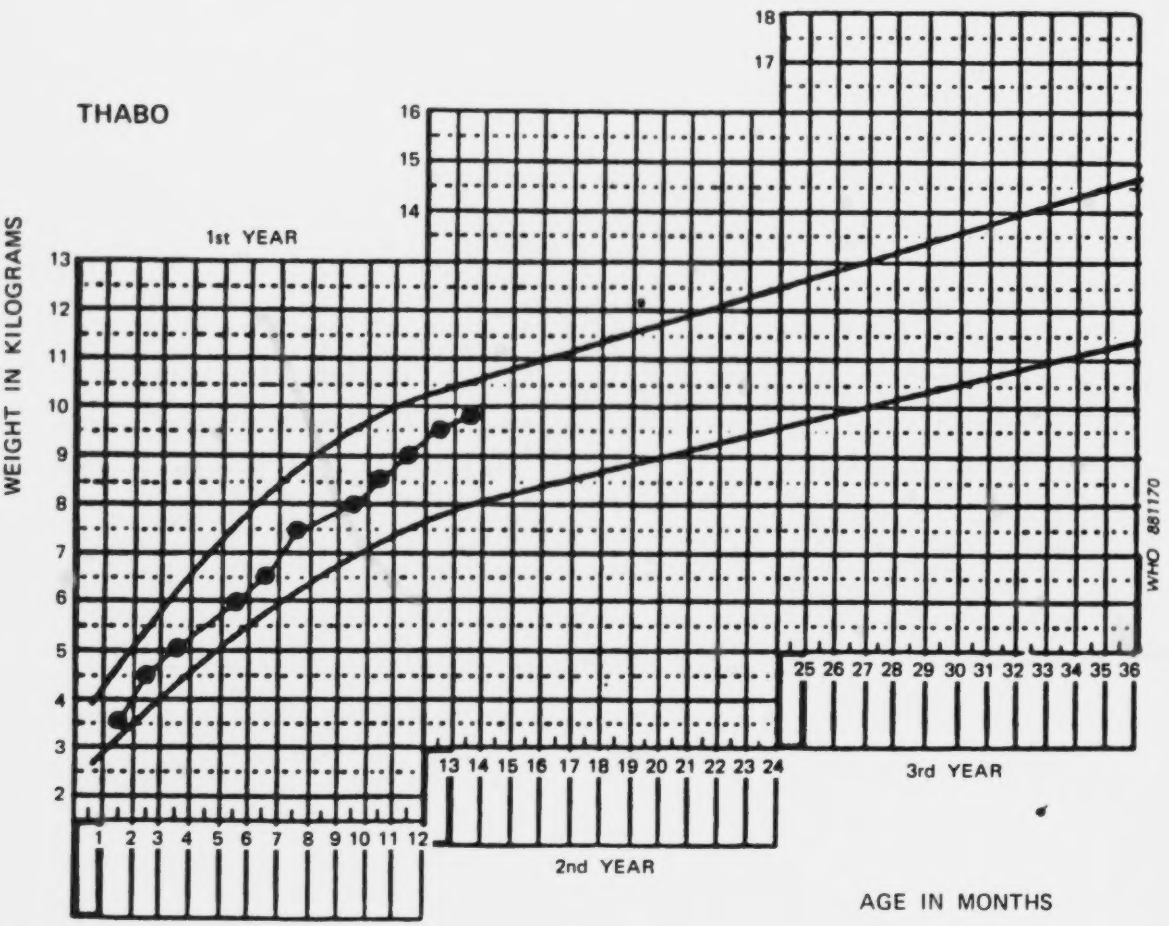


Fig. 42 Thabo's growth chart

9. As a community health worker you should watch the growth line of every young child in your community. You should watch to see if the growth line is going up as the child gets older. Fig. 43 shows John's growth chart. His growth line is not going up. His growth line is staying at the same level. What does this mean?

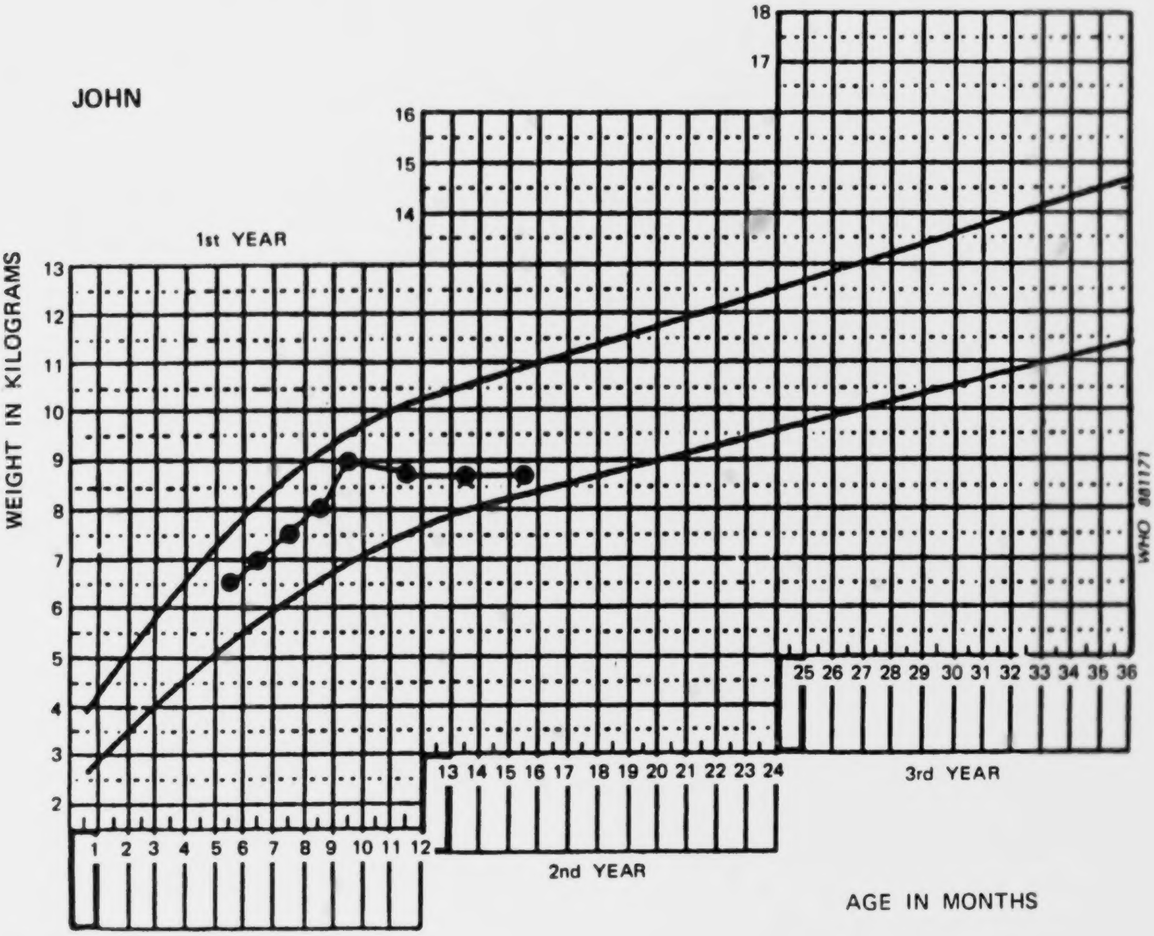


Fig. 43 John's growth chart

10. Look at Maria's growth chart in Fig. 44. Her growth line is going down. What does this mean?

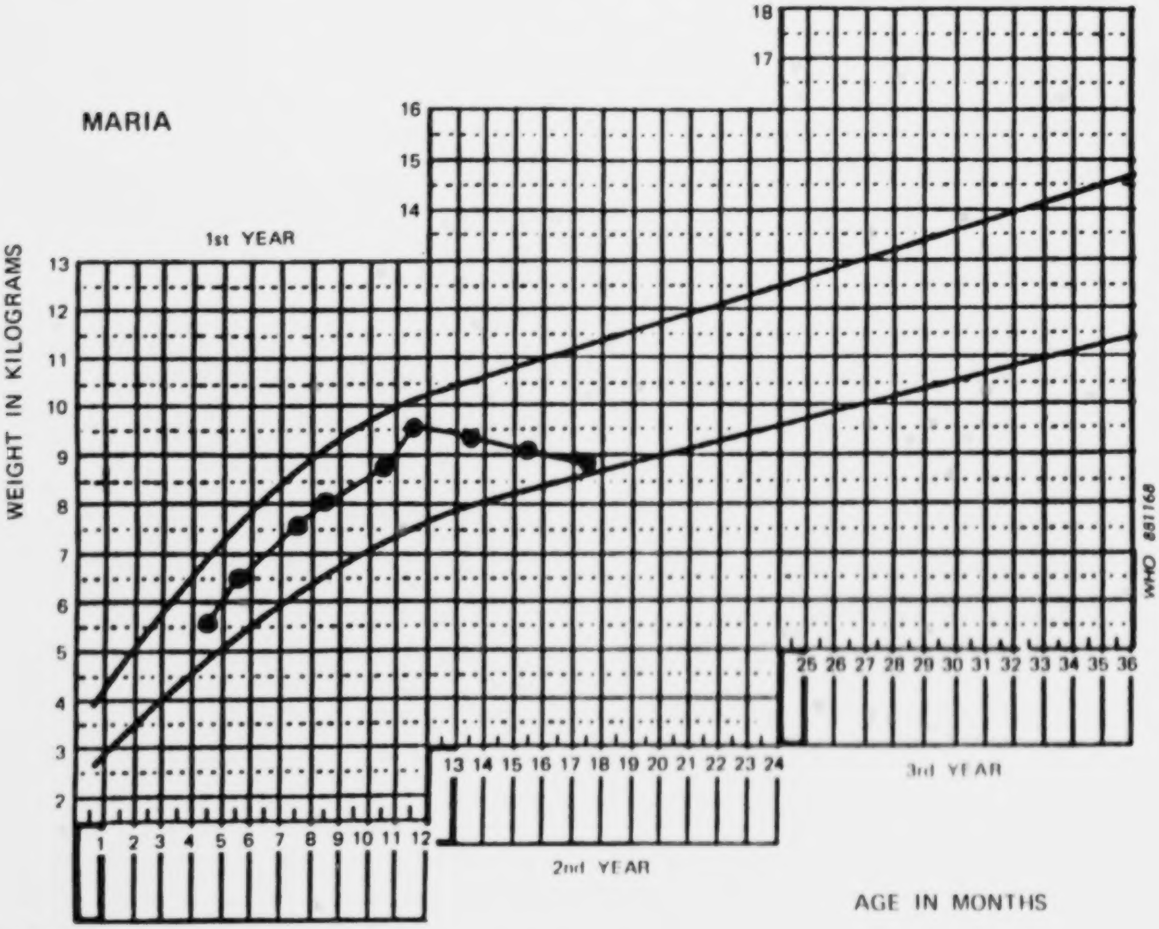


Fig. 44 Maria's growth chart

11. What are the important things you have learned about using growth charts?

12. Look at Mando's growth chart in Fig. 45. What does it mean?

13. What is the main difference between Mando's growth chart and the growth charts of Thabo, John and Maria?

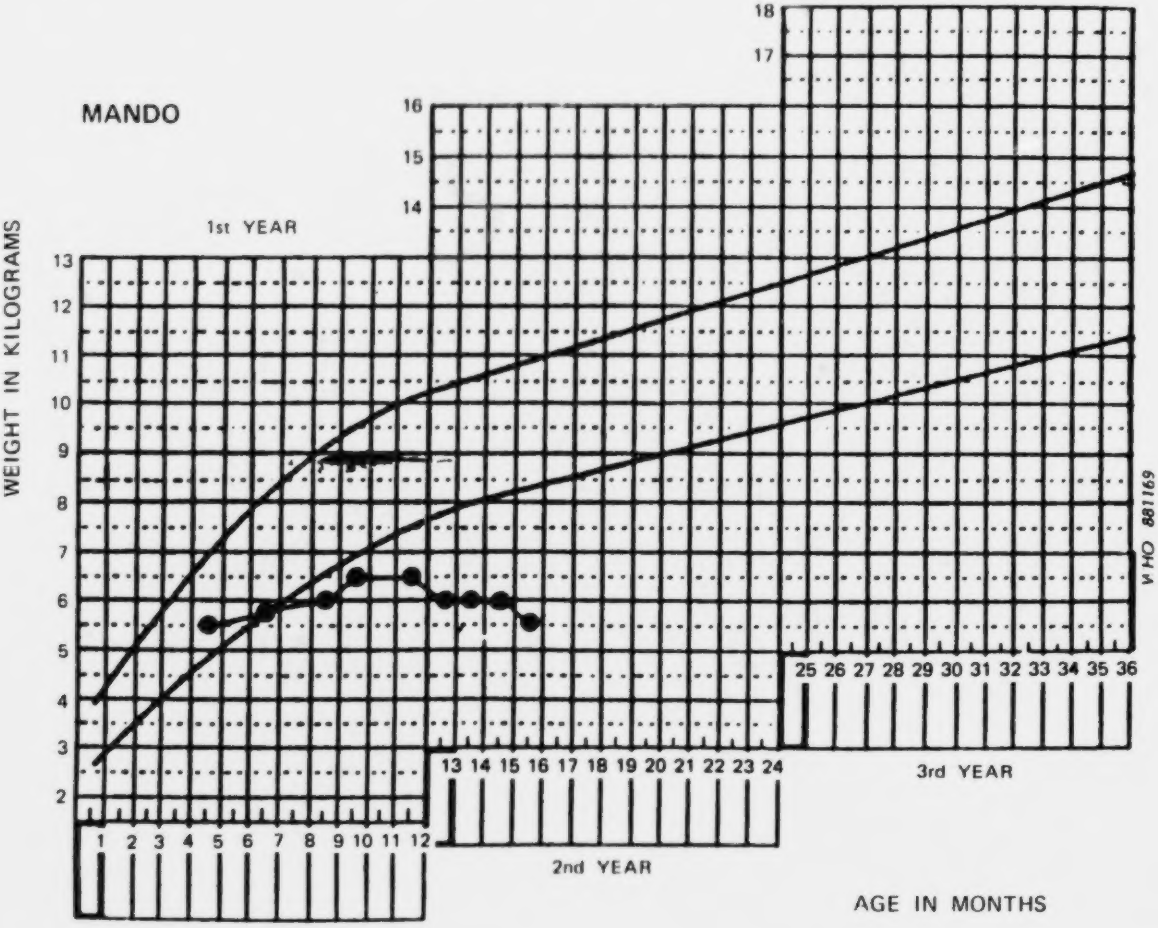


Fig. 45 Mando's growth chart

Answers

1. You can tell whether a child is weak and thin by looking at him or her. The child may not be interested in what is happening around him or her. He or she may be sad, look tired and cry often. A child who is weak and thin sometimes has hair that is lighter than usual in colour. The hair is not shiny like the hair of a healthy child. The child's skin may be dry and may peel. The child's face may be round and look swollen.

2. A healthy child looks well, happy, and ready to play.

3. It is easier to tell when a child is healthy if you know the child's age. Two children of the same age, should look almost the same. In Fig. 40 the child on the left is healthy and happy, whereas the one on the right is weak and thin.

4. If you want to know whether a child is weak and thin stand the child next to a child of the same age who is healthy. Carefully observe the differences between them.

5. You can help to keep children in your community healthy if you share with parents and families what you have learned from Nutrition Learning Packages 2–5. You should also show parents what foods a young child needs and how to prepare these foods, and show mothers how to take care of their children when they are ill.

6. The reasons why children become weak and thin will be different in different communities. Discuss the reasons with other trainees.

7. Another way of telling whether a child is weak and thin is to look at the child's growth chart. A sample growth chart is shown in Fig. 41. Every child puts on weight as he or she grows. The child's weight can be recorded on the growth chart each month. Then the growth chart shows you how each child is growing month by month, and from this information you can tell if the child is healthy.

8. To see whether a child is growing well you should look at the growth line on the growth chart. The growth line of a child is the line made from the dots that the health worker has marked. Each dot shows the weight of the child each month. The child's weight goes up if he or she is growing well. The growth line also goes up. The growth chart in Fig. 42 shows Thabo's growth line. The growth line goes up which shows that Thabo is putting on weight. He is growing well.

9. The growth line staying the same means that John is not putting on weight. He is not growing. He needs more food to grow well. You should visit John regularly and show John's mother how to feed him. Tell John's mother what to feed him and how often he needs food each day. Sometimes a child's weight stays the same if the child is ill. An ill child needs care and plenty of food.

10. Maria is losing weight. She is not growing. She is in danger. If Maria keeps losing weight she may even die. You should ask Maria's mother to take her to the health centre. Maria may become weak and thin very soon.

11. Growth charts help you see whether a child's weight is going up, staying the same, or going down.

12. Mando is thin and weak.

13. The growth lines for Thabo, John and Maria are between the two thick, curved, black lines (shown in Fig. 46). The growth line on Mando's chart is below the dark curved lines. Most children's growth lines are between the dark curved lines when the children are growing. Some children's growth lines fall below the dark curved lines. These children, like Mando, may be weak and thin. These children are in danger.

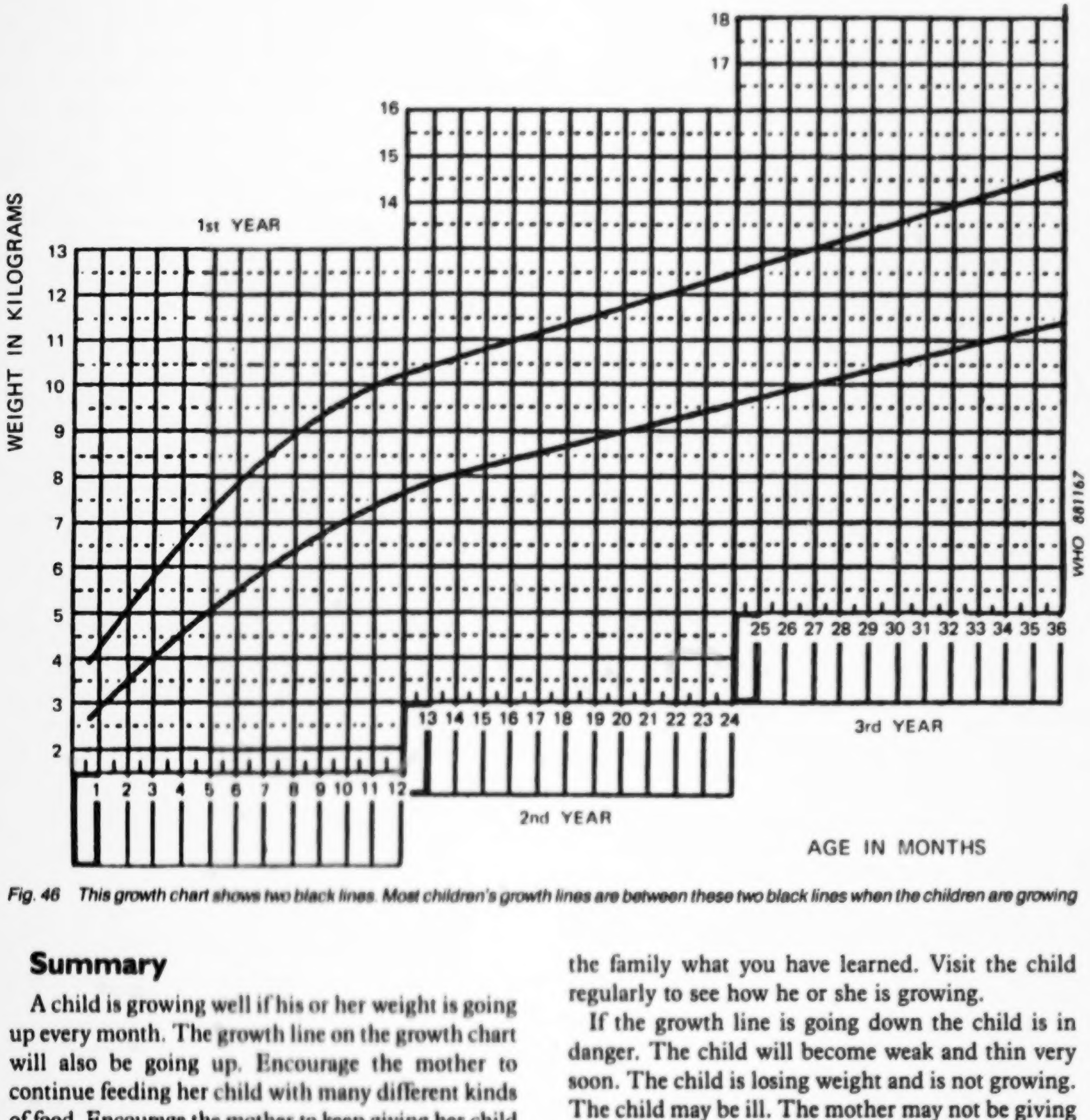


Fig. 46 This growth chart shows two black lines. Most children's growth lines are between these two black lines when the children are growing

Summary

A child is growing well if his or her weight is going up every month. The growth line on the growth chart will also be going up. Encourage the mother to continue feeding her child with many different kinds of food. Encourage the mother to keep giving her child more food.

If the growth line stays the same the child is in danger of becoming weak and thin. The child is not growing. The child needs extra food to grow properly. Encourage the mother to feed her child more food. The child will become weak and thin without more food. Show the mother how to make food for her child. Ask her to feed her child many times a day. Share with the family what you have learned. Visit the child regularly to see how he or she is growing.

If the growth line is going down the child is in danger. The child will become weak and thin very soon. The child is losing weight and is not growing. The child may be ill. The mother may not be giving the child enough food. The child may be getting weak with the illness, and weaker still without enough food. Share with the mother and the family what you have learned about feeding young children. Show the mother how much food her child needs. Food is the best cure for the child. If the child is ill, ask the mother to take her child to the health centre. Visit the child every day and see how he or she is getting on.

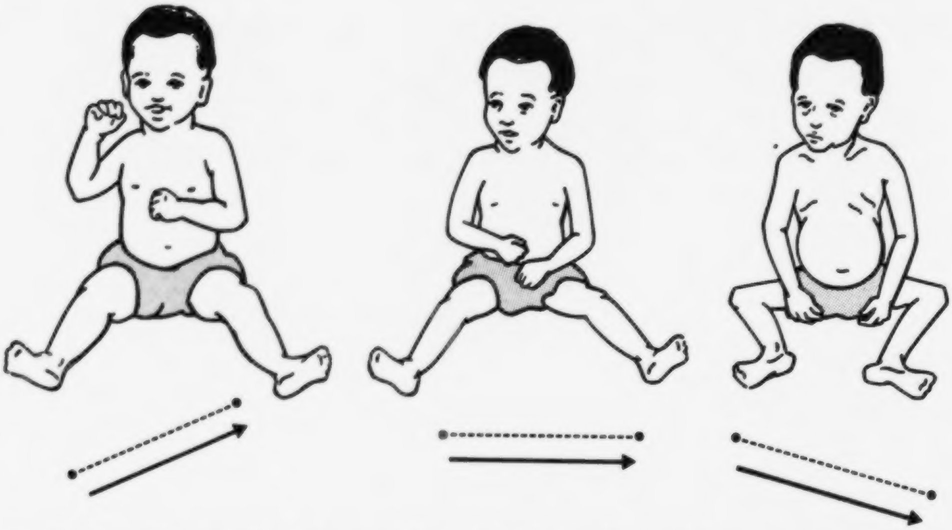


Fig. 47 Three children and their growth lines. The child on the left is healthy. His growth line is going up. The child in the middle is in danger of becoming weak and thin. His growth line is staying the same. The child on the right will become weak and thin very soon. His growth line is going down.

6B Why do children become weak and thin?

Children become weak and thin because they do not get enough food.

Answer the following questions using your knowledge of your local community, and be ready to discuss your answers when your group of trainees next meets.

Why do some children in your community not get enough food?

Here are some questions that may help you find out why the children from a family become weak and thin. You can answer them from your own experience, or by observation and discussion in the community.

Is the family poor? Yes ☐ No ☐

Why is the family poor?

Does the family have very little land on which to grow food? Yes ☐ No ☐

Do the parents spend most of their money on alcoholic drinks and cigarettes? Yes ☐ No ☐

Why do parents spend most of their money on drinking and smoking?

How can you help the family?

Did the mother eat enough food when she was pregnant? Yes ☐ No ☐

If not, why didn't the mother eat enough food?

Does the family have enough food? Yes ☐ No ☐

Are there many children in the family? Yes ☐ No ☐

Is there much food growing in the fields? Yes ☐ No ☐

Did the mother know that she should eat more food while she was pregnant? Yes ☐ No ☐

Can you think of other reasons why children are weak and thin in your community? If so, list them here.

There are many reasons why children become weak and thin and these reasons vary from community to community. When your group meets discuss the reasons why children in your community are weak and thin. Some reasons are listed on the next page to help start the discussion.

Here are some of the common reasons for children becoming weak and thin:

- The family does not have enough money to buy food.
- The family does not grow any food, or the family does not have any land on which to grow food.
- When the mother is at work an older child looks after the baby. The older child does not know how much to feed the baby.
- The mother did not eat enough food when she was pregnant, so the baby was born weak and thin.
- The mother does not eat enough food now that she is breast-feeding, so the baby does not get enough breast milk, and becomes weak and thin.
- The mother does not know how much food a young baby needs. The mother does not start giving soft foods to her baby at four months of age.
- The mother stops breast-feeding when she is ill. The child becomes weak and thin without the breast milk.
- The mother has twins. She does not eat enough to feed two babies. She may not have enough milk to feed two babies.
- The mother stops feeding the baby when he or she is ill. The baby becomes weak from the illness, and weaker because of the lack of food.
- The mother stops breast-feeding her baby too soon and starts giving her baby milk in a bottle. The baby gets diarrhoea very often, and becomes weaker and weaker.
- The mother stops breast-feeding her baby too soon and gives her baby milk diluted with lots of water. The baby gets lots of water but not enough food.
- The baby does not get enough food and becomes weak. The weak baby becomes ill very often and takes a long time to get well. The baby becomes weak and thin.
- The mother does not take her child to the health centre for injections and medicines that can protect the child from getting measles, because she does not know about the injections and medicines. The child then gets measles. The mother stops feeding her ill child.
- A child may stay thin even though the mother feeds the child enough food. If the child coughs a lot, he or she may have tuberculosis. Children with tuberculosis stay weak and thin.
- The child gets diarrhoea. The mother stops giving her child any food or water because of the diarrhoea. The child becomes weak and thin from diarrhoea, and even weaker from hunger and thirst.
- The child becomes weak and thin because of worms. Worms cause pain in the belly. The child's belly becomes swollen and big. The child stays thin even when the mother gives the child enough food. The worms eat up all the food. The child becomes weak and thin even though he or she has a big, swollen belly.

Below, make a final list of the reasons that children in your community become weak and thin. Then, on the right, write what you can do to help. Discuss your ideas with other trainees.

Common reasons why children become weak and thin	What I can do to help

Write here the first things you can do in your community so that children do not become weak and thin.

Note: There are no right and wrong answers. Your answers can be used for discussion in your training group.

6C Making sure a child does not become weak and thin

You have discussed why children in your community become weak and thin. Now you will learn how you can help parents to make sure that their children do not become weak and thin. You will learn how to care for children in your community who are weak and thin. You will learn when to send them to the health centre.

How can you help mothers and fathers to make sure that their children do not become weak and thin?

Using Nutrition Learning Packages 2, 3, 4 and 5, you learned about, and discussed, the care and feeding of children. What information can you share with mothers and fathers?

In your training group discuss the information and ideas you have chosen to share with mothers and fathers.

There are some weak and thin children in most communities, and in some communities there are many weak and thin children. Many children die because they are weak and thin. You can help save most of these children. They need food and good care. If children get enough food and good care they do not become weak and thin.

Questions

Note: For answers to Questions 1–6 see pages 121–123.

1. Some children are weak and thin when they are born. Why is this?

2. Some children become weak and thin soon after they are born. Why is this?

3. Some children are born healthy, but they become weak and thin when they are five or six months old. Why is this?

4. Some children become weak and thin after they have been ill. Why is this?

5. What are some other possible reasons why a child becomes thin and weak?

6. What can you do to help the thin and weak children in your community?

7. What can you do to make sure that children in your community do not become weak and thin?

8. How are you going to do these things in your community?

Note: Your answers to questions 7 and 8 will depend on the situation in your community. After you have answered these questions, discuss them with the other trainees in your group and with other people in your community.

Answers

1. If a woman does not eat enough food when she is pregnant, her baby will be born weak and thin. A woman should eat more food when she is pregnant. She should also eat lots of green leafy vegetables. Then the pregnant woman will be healthy and her baby will be born healthy.

   If a woman becomes ill with a high fever or another illness while she is pregnant, she may give birth to her baby too soon. A baby who is born too soon is often small and weak. When a pregnant woman becomes ill, she should see a health worker as soon as she can.

2. If a mother does not breast-feed her baby for the first few days after birth, the baby will become ill and weak. A mother's milk in the first few days is thin and yellow. This special milk protects the baby from many illnesses. This milk is very good for the baby. A mother should breast-feed her baby for the first time on the same day as the birth.

   Some babies who are born healthy become weak and thin in the first few months. This happens when a mother is ill and stops breast-feeding her baby. A mother should not stop breast-feeding her baby when she is ill. Breast milk will not make the baby ill.

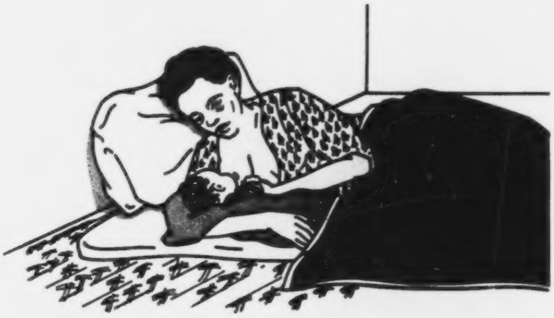


Fig. 48 This mother is ill but she is still breast-feeding her baby. There is no risk of the baby becoming ill from the breast milk

3. A baby of up to four months old needs only breast milk.

   After four months a baby also needs soft foods. A mother should start feeding soft foods to her baby when he or she is four months old. A mother should also continue breast-feeding her baby. Breast milk is good for the baby, but after four months the mother should also start giving soft foods.

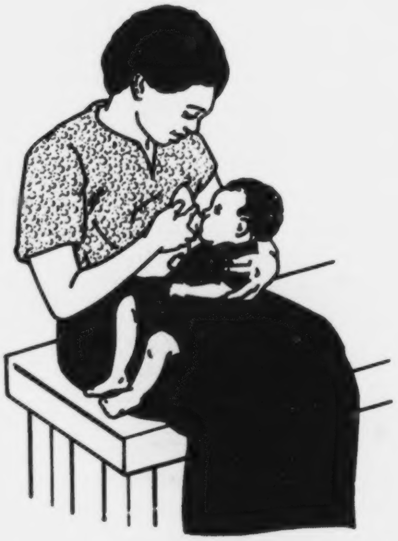


Fig. 49 A baby of up to 4 months old needs only breast milk

Some mothers try to give the baby soft foods, but find that the baby does not know how to eat the food. On the first day the baby has soft foods, a mother should give her baby a small amount of food. The next day, a mother should give her baby a little more food. This will give the baby a chance to get used to eating the soft food and soon the baby will be able to eat one cup of soft food in a day. The mother should keep giving her baby a little more food every day. The baby is growing fast, and needs food to grow.

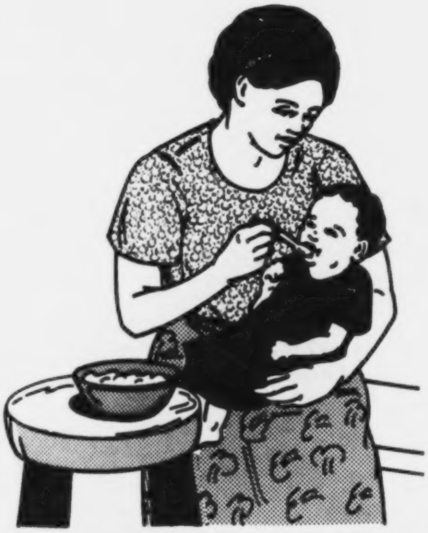


Fig. 50 A mother should start feeding her baby soft foods, as well as breast milk, to her baby when the baby is 4 months old

Some mothers start giving the baby milk from a bottle. Bottles get dirty very easily. If a mother mixes the milk with water, the water may not be clean. Flies may sit on the nipple of the bottle making the bottle dirty. A baby fed from a dirty bottle gets diarrhoea very often. A baby with diarrhoea becomes weak and thin. It is better for a mother to breast-feed her baby. Then her baby will not get diarrhoea often because breast milk is clean.

If a mother does not prepare the baby's soft food in a clean way, the baby will become weak and thin. The baby will have diarrhoea often. The baby has diarrhoea because the mother prepares the food in an unclean way. A mother should prepare food for her baby very carefully. She should always wash her hands before preparing food and she should wash her hands before feeding the baby. A mother should feed her baby with a clean cup or with a bowl and a clean spoon.

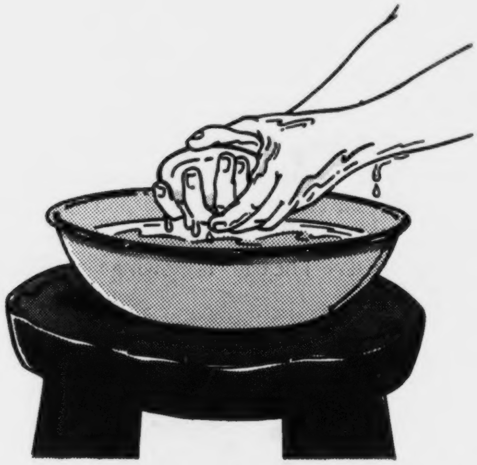


Fig. 51 A mother should always wash her hands before preparing her baby's food and before feeding her baby

Sometimes a mother stops giving her child any food or water when the child gets diarrhoea. The child loses a lot of food and water with diarrhoea and becomes weak and thin. A mother should give her child food and liquids when he or she has diarrhoea. A mother should also continue to breast-feed her child.

4. If a mother stops feeding her child when the child is ill, he or she will become weak from the illness, and weaker from hunger. The child will become weak and thin. A mother should give her child plenty of food and water when the child is ill. She should continue to breast-feed her child.

A child has a small stomach, and cannot eat a lot of food at one time. A mother should feed her child five or six times a day. She should also continue to breast-feed the child so that the child gets enough to eat, and grows healthy.

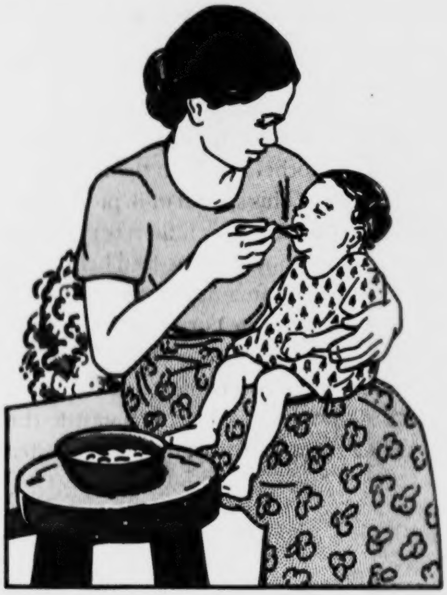


Fig. 52 A mother should continue to give her baby plenty of food and water when the child is ill

5. The child may have tuberculosis. The mother should take her child to the health centre, dispensary or hospital. There the child will get some special injections that can help prevent tuberculosis. Then the child will grow healthy again.

Mothers with young children should go to the health centre or dispensary regularly. At the health centre the children will get special injections and medicines that can help so that they do not get illnesses like polio, tuberculosis, measles and tetanus.

6. Food is the best treatment for weak and thin children. If a child is more than one year old and very weak and thin, he or she will take some time getting used to eating. A mother should start giving her child soft foods. She should give a little food on the first day and then she should gradually give the child more food day by day. Soon her child will get used to eating the food. The mother can then make the food thicker.

   Weak and thin children need foods like whole grains, beans and lentils, and meat, fish or milk if their mothers can afford them. Weak and thin children need the good foods you have learned about. A mother should feed her child many times each day.

   Ask the mother to take her child to the health centre. The health worker at the health centre will show the mother how to make her child better. The health worker will show the mother how to make a special porridge for her child. It is useful to add fat such as gravy, oil, butter, avocado or ghee to the porridge. Fat makes the porridge easier for the baby to eat. It also helps the baby grow stronger and gain weight.

If there are many weak and thin children in your community, you will need to know how to make a special porridge for them. This porridge is made from the staple food of your community, plus other types of foods, for example, peas and beans and food from animals. This porridge is good for most children. If you can easily find all the foods you need in your community, practise making the porridge. You can then show the parents of young children in your community how to make the porridge. Nutrition Learning Package 4 (Materials 4B and 4C), describe how to make meals suitable for young children, and how to feed children of different ages.

6D A community nutrition graph

Setting:

A village or neighbourhood where people are interested in learning about how well their children have grown, and therefore the children's state of health and nutrition. This works best in neighbourhoods of 25 to 40 households.

Time:

About 30 hours, spread over several weeks of surveying and community meetings.

Purpose:

To help a community learn how to investigate and record the health and nutritional status of its children.

Preparation:

You will need marker pens, a ruler, a weighing scale, a copy of your country's growth chart (or of the WHO growth chart), and a large sheet of paper. On the paper draw a community nutrition chart (see Fig. 53). Make spaces for the names of children. If two or more children are born in the same month, use (a) and (b) or a similar system to show which dot represents which child.

Procedure:

1. Hold a meeting to discuss the purpose of a community nutrition survey. If the community is interested, ask for two volunteers to help conduct the survey. Decide upon the days and times for carrying out the survey. Also set a date for meeting to discuss the survey results.

2. Explain to the volunteers that to fill in the Community Nutrition Graph they need to know the ages and weights of all children under three years of age. The first step is to ask mothers the age and birthdates of their children. If a mother cannot remember, the volunteer can find out roughly when the baby was born by asking her whether the child was born before or after a neighbour's child.

3. Show the volunteers how to weigh a child using the scale and how to read the weight off the scale. Then, ask them to practise marking the weight on the graph.

4. Role-play this activity with the volunteers so that they feel comfortable with carrying out the survey.

5. Help the volunteers to carry out the survey. This is especially important for the first households that are surveyed.

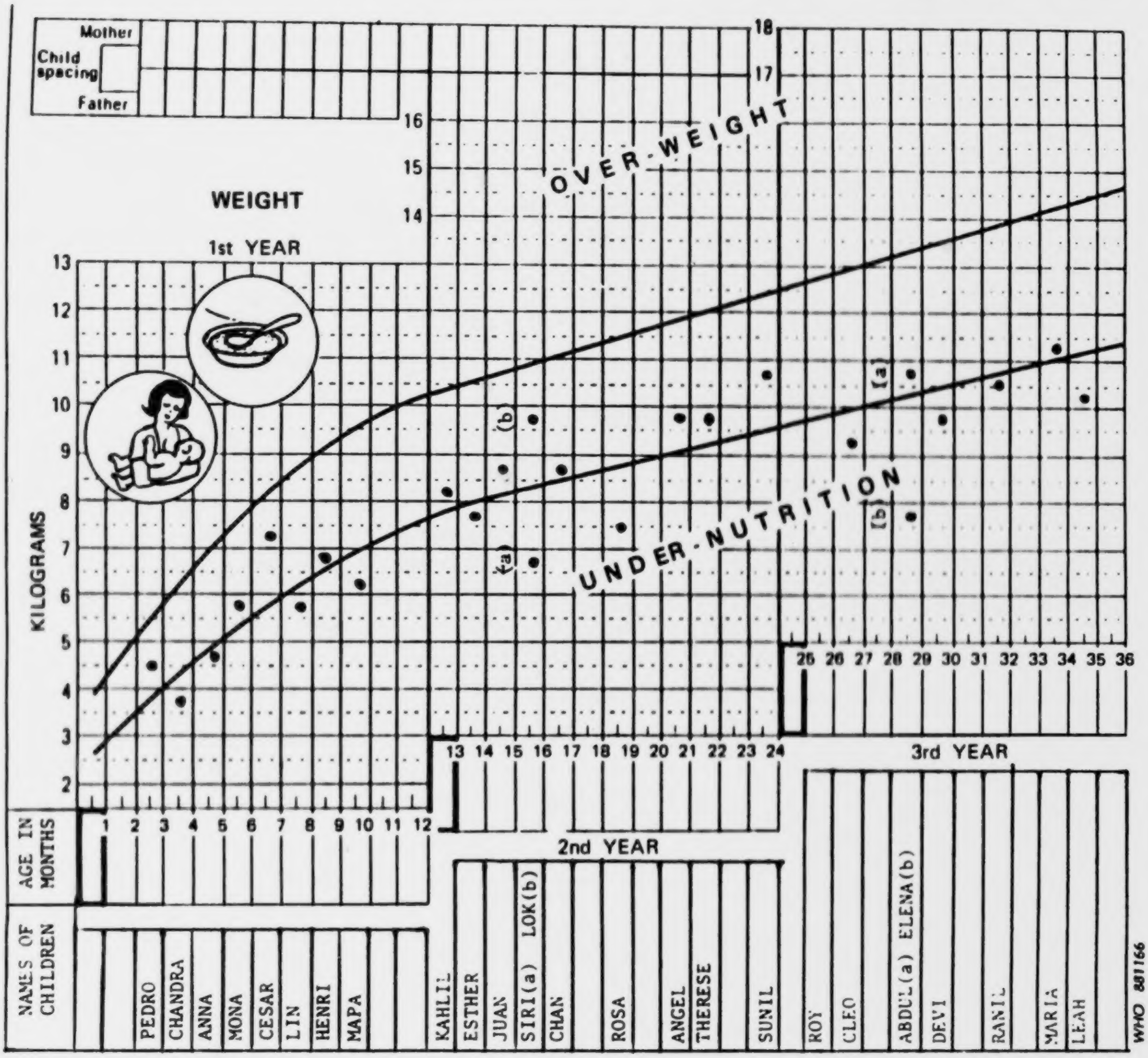
6. At each house encourage the parents to attend the meeting to discuss the survey results.

7. Hold a community meeting to discuss the survey results. Invite a health centre staff member to attend the meeting. Discuss plans for improving the nutrition of the children. The community nutrition graph will help the people to decide whether action is needed for the entire community or whether only a few families need help.

8. Make another community nutrition graph after six months to evaluate the results of the community action.

This activity can be the beginning of a regular child-weighing programme. From the larger graph, fill in individual growth charts for each child. Have the mothers and fathers meet every month to weigh their children and discuss the children's health.

Nutrition Learning Package 2 — *Measuring growth* — contains more information on weighing children and on growth charts.



(a) and (b): 2 children born in the same month.

Fig. 53 A community nutrition graph

6E Checking for anaemia

Anaemia is a common problem for pregnant women, breast-feeding mothers and children under five years old. In areas where there is hookworm, malaria or severe malnutrition, most people may be anaemic. Health workers should suspect anaemia especially among women and young children in any community where malnutrition is a problem.

To test accurately for anaemia in the community requires special equipment. Most community health workers will not have this equipment, which tests the amount of red colour (haemoglobin) in the blood. In some countries community health workers say they can tell that a person has anaemia if the lips, gums, tongue, inner surface of the eyelid, fingernails or palms are pale. Sometimes they use a set of colour photographs that show the lips and tongues of two people, one who is healthy and one who is anaemic. Sometimes community health workers compare a healthy person's tongue, lips and palms with a person they think might have anaemia. Some health experts say that these methods are not very accurate. Others disagree and say that the methods are useful. Find out what your trainer and the community health workers in your community or health centre think.

Whenever you are working with a mother or child who is suffering from malnutrition, you can suspect that the person is also anaemic. The mother should go to the health centre and receive the tablets or medicine that will help her or her child. For more information on taking the iron tablets see Nutrition Learning Package 5, Material 5A.

6F Checking a child for nutritional blindness

In some areas children may become blind or suffer from other eye problems if they do not get the right kinds of food to eat. Malnutrition, measles, and diarrhoea can also cause eye problems. Whether they are caused by bad nutrition or illness, eye problems occur if children do not have enough vitamin A.

To find out whether nutritional blindness is a problem in your area ask mothers the following questions:

- Is your child night-blind? An easier way to ask this question is to ask whether the child sometimes stumbles after the sun has gone down, or whether he or she is able to see the food easily during the evening meal.
- Are your child's eyes often red?
- Does your child often keep his or her eyes closed?

If nutritional blindness is a problem in your area there are a number of things you can do about it.

- You can learn how to examine a child to recognize the signs of vitamin A deficiency.
- You can find out how to use vitamin A capsules, and keep a stock of them to give to children.
- You can make sure that children are given foods that protect them from nutritional blindness.

Examining children for nutritional blindness

Examine both of the child's eyes. Look for bubbly white patches on the surface of the white part of the eye. Also look for changes in the darker part of the eye; this part may look cloudy or hazy, there may be small patches and the area may turn white. There are colour pictures of these changes in the WHO booklet *Save your child from nutritional blindness,* mentioned on page 103.

SEND ANY CHILD WITH CHANGES IN THE DARK PART OF THE EYE TO A HOSPITAL OR DISPENSARY IMMEDIATELY.

How to use vitamin A capsules

If nutritional blindness is a problem in your area, give any child with changes in the white of the eye, or who has malnutrition, diarrhoea or measles, a vitamin A capsule or solution immediately. For children over one year of age, the amount to give is 200 000 IU (international units) immediately, a further 200 000 IU on the next day, and a further 200 000 IU four weeks later. Infants under 1 year of age should be given half the above doses, on the same schedule. There may be a policy in your area for the regular distribution of vitamin A capsules to children. If so, this policy should be followed carefully.

Food that prevents nutritional blindness

The foods that mothers should feed to their children are: cooked green leafy vegetables, for example spinach or amaranth leaves, and orange fruit, for example papaya or mango.

CHILDREN SHOULD EAT THESE VEGETABLES OR FRUITS EVERY DAY TO PREVENT THEM FROM GOING BLIND FROM POOR NUTRITION.

MOTHERS SHOULD BREAST-FEED THEIR YOUNG CHILDREN BECAUSE BREAST MILK PROVIDES THE VITAMIN A THAT PREVENTS BLINDNESS.

Nutrition Learning Package 7

NUTRITION DURING DIARRHOEA AND OTHER INFECTIONS

THIS LEARNING PACKAGE SUPPORTS
MODULE 7: NUTRITIONAL CARE DURING DIARRHOEA AND OTHER COMMON INFECTIONS
In: *Guidelines for training community health workers in nutrition,*
WHO, 1986

Contents

This Nutrition Learning Package contains materials for use in training community health workers to be able to:

- Explain to mothers the causes and dangers of diarrhoea.
- Recognize dehydration in a child and advise on treatment.
- Explain the relationship between infections and malnutrition.
- Advise mothers on feeding children during and after diarrhoea and infections.

Materials

7A What is diarrhoea and what causes it?
7B Why is diarrhoea dangerous?
7C How can a community health worker prevent diarrhoea and other infections?
7D Care and treatment of children who have diarrhoea.
7E Nutrition and infections.

How to use the materials in
Nutrition Learning Package 7

Most of the information given to trainees on diarrhoea will not be given by the same person who gives information on nutrition. Your role as nutrition trainer is to concentrate on the nutritional care of people with diarrhoea. Materials 7A, 7B and 7C review what trainees should have already learned about diarrhoea in their general health training.

Your attention is also drawn to the WHO publication, *Treatment and prevention of acute diarrhoea: practical guidelines.*

7A What is diarrhoea and what causes it?

This self-learning activity helps trainees to think about the causes of diarrhoea in a community. Give the questions to trainees. Use their answers to lead a discussion, followed by a summary of diarrhoea, its causes and prevention.

7B Why is diarrhoea dangerous?

This material outlines the dangers of diarrhoea. Trainees can role-play how to explain the dangers of diarrhoea to a mother. They can take turns to play the part of the mother and the part of the community health worker.

7C How can a community health worker prevent diarrhoea and other infections?

This material helps trainees think through their role in preventing and treating diarrhoea in a community. They can work individually and then as a group to identify the messages about diarrhoea to be given to people in the community. Trainees can then use these messages to design activities and materials to use with people in the community. For more information on developing messages, see Learning Package 8 — *Communicating nutrition messages.*

7D Care and treatment of children who have diarrhoea

This material uses a question and answer sheet to review what to feed a child who has diarrhoea or who is recovering from diarrhoea. It encourages trainees to ask questions in the community. It is important to know what community people do about diarrhoea. The good things they do, for example giving tea or rice water, should be encouraged.

How to decide when a child with diarrhoea needs urgent care covers important points trainees should know about deciding to refer a child for special care. The chart on page 142 can be made into a large poster for the training room. There is also material on the treatment and prevention of dehydration.

The Ministry of Health in your country may already have materials on this subject. If so, get copies for your trainees.

7E Nutrition and infections

The first part of this material encourages trainees to get to know the community where they are being trained. After finding out the answers to the questions on page 145, the trainer and the trainees can discuss the information collected and think of ways to plan community activities to protect children and others from infections and diseases.

The second set of questions, on page 146, covers the information that community health workers will need to pass on to parents.

Reviewing the nutrition information in Nutrition Learning Package 4 will remind trainees of the importance of good nutrition in keeping children strong so that they do not get infections or diseases easily.

7A What is diarrhoea and what causes it?

Questions

Answer the questions below. Your answers will then be used as the basis for a group discussion on diarrhoea.

1. What is diarrhoea?

2. What causes diarrhoea?

3. What are some of the causes of diarrhoea in your community?

4. What should people in your community do to stop children and adults from getting diarrhoea?

Answers

1. Diarrhoea is loose, watery stools (see Fig. 54). A person who has three or more loose stools in a day has diarrhoea.

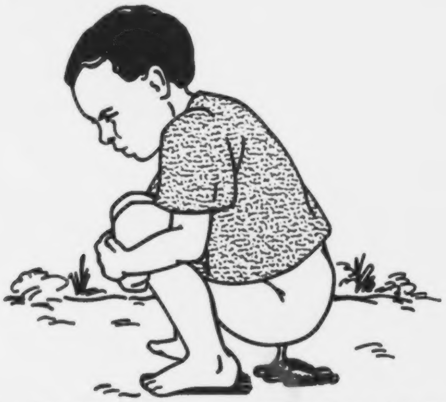


Fig. 54 This child is passing loose watery stools. He has diarrhoea

2. Several different things can cause diarrhoea. For example, children can get diarrhoea when they play in places where there are animals. Children can get diarrhoea when they eat unclean food, or are bottle-fed with a dirty bottle. Children also get diarrhoea if their mothers had dirty hands while they prepared food for the children.

3. The answer to this question will depend on your community.

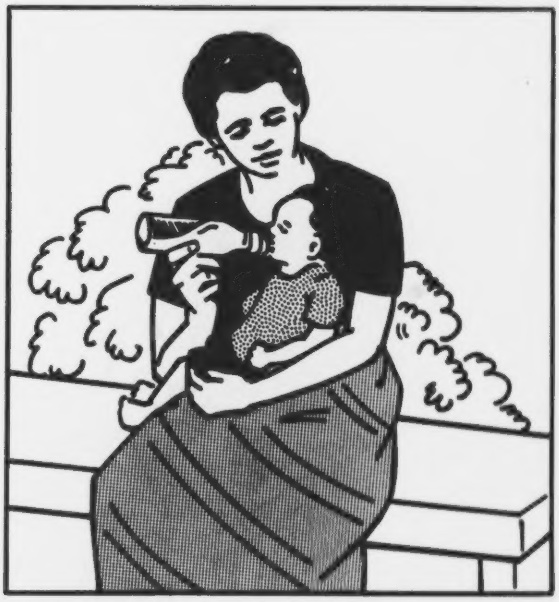


Fig. 55 (a) This child may get diarrhoea as she is being fed from a dirty bottle

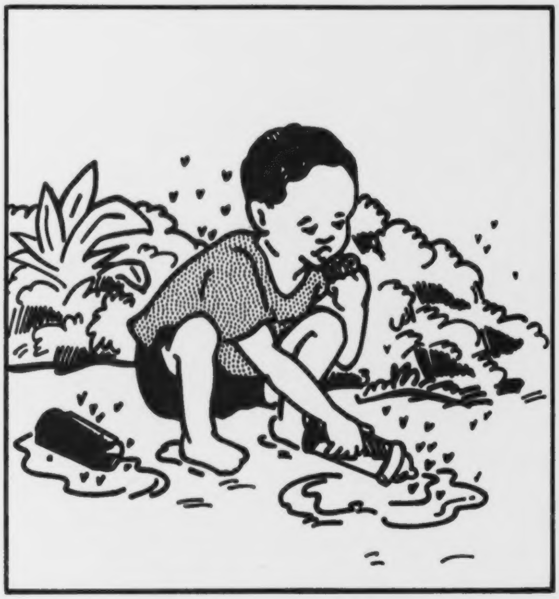


Fig. 55 (b) This child is playing in a dirty place, and eating dirty food. He is likely to get diarrhoea

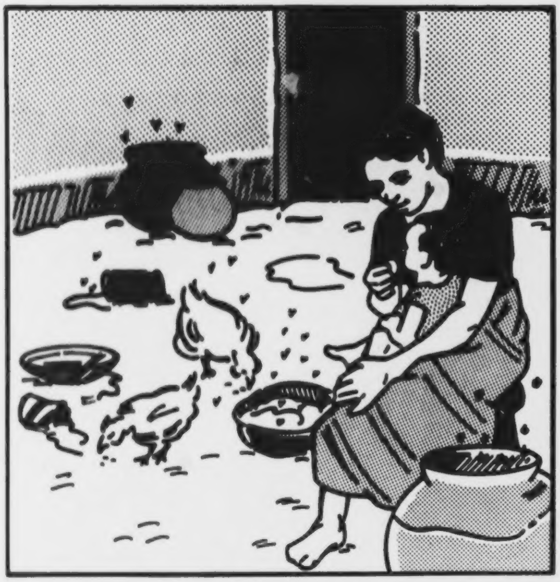
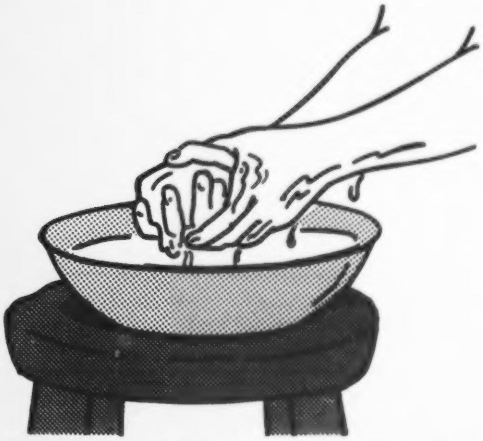


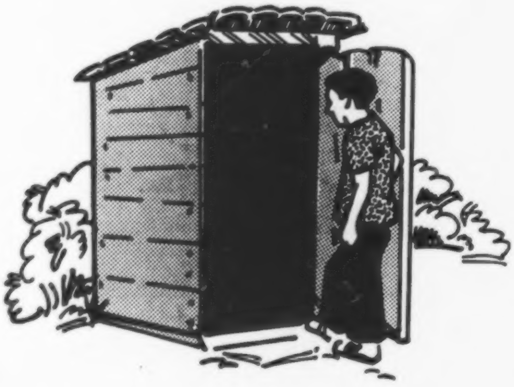
Fig. 55 (c) The mother of this child has not washed her hands before feeding her child, and is feeding her in dirty surroundings. The child may get diarrhoea

4. To stop children and adults getting diarrhoea people in your community should:
   - wash their hands before preparing food.
   - wash their hands before eating food.
   - use latrines.
   - quickly clean up the stools of young children and put them in a latrine.
   - keep their houses clean.
   - keep drinking-water clean in covered pots.
   - encourage mothers to breast-feed their babies.
   - keep flies and cockroaches away from food.
   - keep stored food cool.

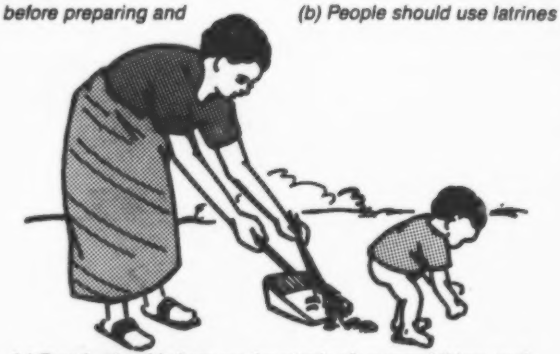
Fig. 56 People in the community can do the following things to stop children and adults getting diarrhoea:



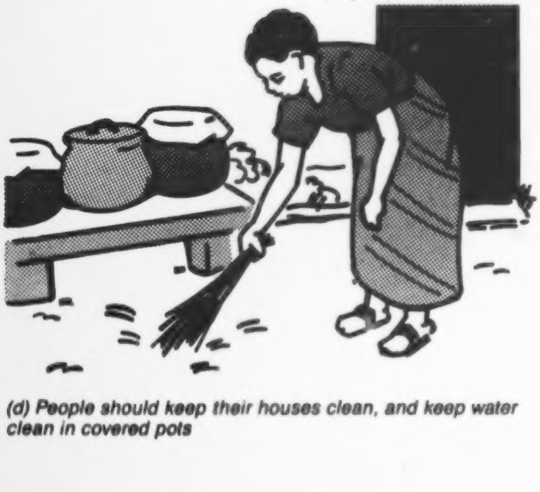
(a) People should wash their hands before preparing and eating food



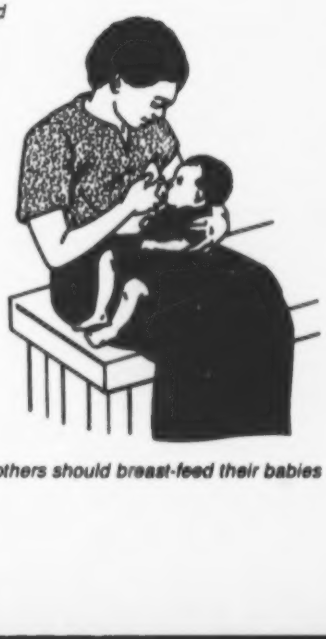
(b) People should use latrines



(c) People should clean up the stools of young children and bury them or put them into a latrine



(d) People should keep their houses clean, and keep water clean in covered pots



(e) Mothers should breast-feed their babies

7B Why is diarrhoea dangerous?

Even with all the care a mother gives, her child may sometimes get diarrhoea. A mother must know how to take care of her child when he or she gets diarrhoea. Good care for a child with diarrhoea will stop the child from becoming very ill. Without good care, diarrhoea can be dangerous for children.

Diarrhoea can be dangerous because a child loses a lot of water. The child also loses a lot of food.

Most of a child's body is made of water. When a child loses water with diarrhoea, the child's body begins to dry up, like a plant does when it has no water. This drying up happens very quickly in young children who have diarrhoea. When a young child begins to dry up, he or she is in danger. If the young child does not get any water, he or she can die. This is why diarrhoea can be dangerous for children, and very dangerous for young children.

A mother should therefore continue to feed her child when the child has diarrhoea. A mother should also continue to breast-feed her child.

Ask yourself what you, as community health worker, can do to help a mother whose child has diarrhoea?

You can share with the mother what you know about diarrhoea, explain what happens when a child has diarrhoea and tell the mother how she can best look after a child with diarrhoea.

A child who has diarrhoea or is vomiting loses water and begins to wrinkle. The child's skin becomes dry.

As soon as a child has the first loose stool, the mother should begin giving the child any kind of liquid that the child will drink.

Breast milk, rice water, soup, thin porridge, and coconut water are some examples. A mother should give her child small sips of liquid every few minutes. The child will not vomit so much if he or she takes small sips.

Explain to the mother how to tell when the child is getting better. The child will start urinating a lot. The mother must keep on giving the child liquids and food. A child with diarrhoea needs plenty of food.

You can also show mothers how a child becomes dry.

- Pull out two plants from the ground.
- Put only one plant in some water.
- Leave the other plant without water.
- The mothers can see that the plant without water dries up very fast.

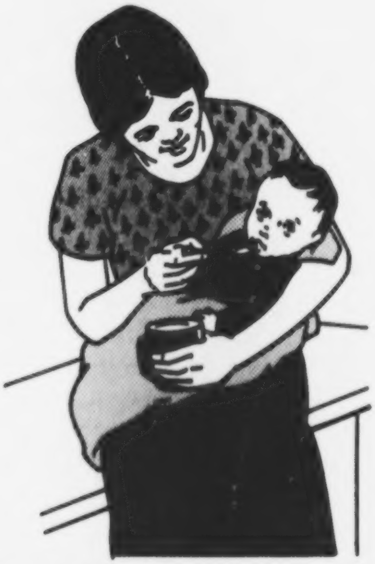


Fig. 57 As soon as a child has the first loose stool, the mother should start giving the child liquids in small sips, every few minutes

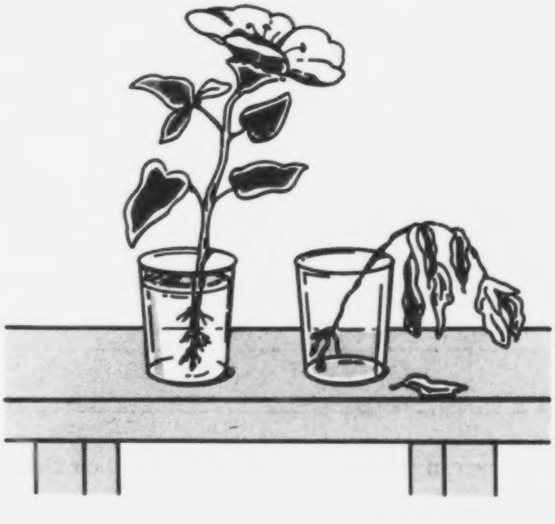


Fig. 58 Using two plants, one in water and one without water, community health workers can demonstrate how a child dries up without water. Mothers can see how quickly the plant without water dries up.

7C How can a community health worker prevent diarrhoea and other infections?

Questions

1. How can you as a community health worker help prevent diarrhoea and other infections in your community?

2. What messages about food and feeding children, that you have learned from the Nutrition Learning Packages, can you tell people, to prevent illnesses like diarrhoea?

3. Clean water to drink is important to prevent diarrhoea. What would you tell people in the community about their use of drinking-water?

4. What other things should you try to help people understand in order to prevent cases of diarrhoea in your community?

5. How can you help parents to protect their children against other diseases and infections?

Answers

1. Community health workers can help prevent diarrhoea by teaching people simple facts about:
   - feeding their children.
   - drinking clean water.
   - keeping their homes and themselves clean.
   - keeping their food clean.
   - immunization against diseases.
   - the use of latrines.
   - the proper disposal of animal and human wastes.

2. Some useful messages are:
   - Breast-feeding is the best way to prevent diarrhoea and other infections.
   - A bottle-fed baby is more likely to get diarrhoea than a breast-fed baby, because bottles and teats get dirty easily and are hard to clean.
   - When feeding a baby foods other than breast milk, always use a clean cup or bowl and spoon instead of a bottle. For more information see Nutrition Learning Package 3 — *Breast-feeding.*
   - A young child who is well fed will grow well and be healthy. A healthy child who gets diarrhoea or an infection will usually get better more quickly than a weak and thin child. The foods given to a young child should be as clean and freshly made as possible. Flies and insects can make food unhealthy and cause diarrhoea and infections. For more information see Nutrition Learning Package 4 — *Feeding young children.*

3. Drinking-water should be taken from the cleanest possible source. Unless you are sure that the water is safe, it should be boiled before you drink it. The water should be kept in clean, covered containers (see Fig. 59) and used only for drinking.

   You should not wash your body, clothes, or pots and utensils at the source of drinking-water.

   Stools and urine should not be passed in or near the source of drinking-water.

4. You should help people to understand that personal, home and community health habits can help stop germs from getting into the body. The community health worker should discuss these points with all the people in the village or community. She or he should learn from them what people think about diarrhoea and encourage ideas that are helpful. The following should be discussed with the people in the community:
   - Dirt, rubbish, stools, and urine contain germs that cause infections, including diarrhoea.
   - Stools and urine should be passed in a latrine. If there is a latrine, it should be kept clean. Only if there is no latrine should stools and urine be passed at a distance from the village and away from the source of drinking-water. Stools passed by children near the house should be taken away and put in a latrine or buried.
   - People should wash their hands after passing stools and before preparing food, eating, or feeding children. Children's hands should be washed too.
   - Rubbish should be burned, buried, or taken to a place far away from the village, and away from the source of drinking-water.
   - Flies carry germs from dirt, rubbish, and stools into the house and on to food. Flies should be kept away from stools (by burying stools), from latrines (by keeping them clean), from rubbish (by burning or burying it), and from food (by keeping it covered).

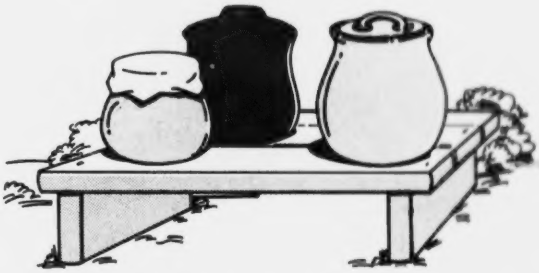


Fig. 59 These storage jars are good for keeping drinking-water clean

5. Immunization against common diseases of childhood is important. As a community health worker, you will be taught about immunization during your training. Be sure that you know when mothers should take their children to the health centre or clinic for immunization.

7D Care and treatment of children who have diarrhoea

Questions

1. What should a mother do as soon as her child's diarrhoea starts?

2. What should a child with diarrhoea eat?

3. What should a mother feed a child who is recovering from diarrhoea?

4. How can you decide whether a child needs special care?

Answers[1]

1. As soon as diarrhoea starts, a child should be given more fluids than usual.
   - Give a breast-fed child breast milk more often.
   - Give the child plenty of liquids to drink, such as rice water, fruit juice, coconut water, weak tea, soup, thin porridge or a carefully made solution of sugar, salt and water. It is very important to mix the sugar, salt and water in the correct proportions. The trainer will teach you how to make this solution if needed.[2]
   - In many countries special packages of ORS (oral rehydration salts) are available for treatment of diarrhoea. If these are available in your area your trainer will tell you how to get and use them.
   - Continue to give the child as much food as he or she wants. Not feeding a child with diarrhoea can make the child more weak and ill.

2. A child with diarrhoea needs plenty of food. All breast-fed children should be given breast milk during diarrhoea.

   If a child is having other foods, these should continue to be given during diarrhoea. The best foods are those that are easy to digest. For example, boiled rice, porridges, soups, yoghurt and milk products, eggs, fish, well-cooked meat, pineapple, banana, coconut water, pawpaw and dhal water. Small amounts of fat or oil may be given too, mixed in with the food.

3. When a child is recovering from diarrhoea the mother should let the child eat as much as he or she wants. She should offer the child small amounts of food between five and seven times a day during diarrhoea. Because the child will probably not be able to eat much each time. The child should be encouraged to eat little and often.

   The child needs food. Without food a sick child gets weaker. Continue to breast-feed the child often. Even if the child vomits, keep on giving him or her food, a little at a time.

   Feeding a sick child takes time and patience. Make sure that the mother always uses a clean cup and spoon. If the mother is very busy, perhaps someone else, for example the father, the grandmother, or an older child, can help by feeding the sick child some of the time. Feeding a sick child is very important.

   A child should have at least one extra feed a day for a week after the diarrhoea has stopped.

4. If a child with diarrhoea is being treated at home with extra liquid and food but is still not recovering, he or she may need special care. Detailed information on this given in *How to decide when a child with diarrhoea needs urgent care* on page 142.

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[1] A summary of how to treat diarrhoea is given in 'Treatment Plan A' on page 140.

[2] For detailed instructions about how to make the solution, how much to give, and how to give it, the trainer should consult: *The treatment and prevention of acute diarrhoea. Practical guidelines*, Geneva, World Health Organization, 1989.

Treatment Plan A: To treat diarrhoea

Explain the three rules for treating diarrhoea at home:

1. GIVE YOUR CHILD MORE LIQUIDS THAN USUAL TO PREVENT DEHYDRATION. Suitable liquids include:
   - The recommended home liquid or food-based drinks, such as gruel, soup, or rice water.
   - Breast milk or milk feeds prepared with twice the usual amount of water.

2. GIVE YOUR CHILD FOOD
   - Give freshly prepared foods. Recommended foods are mixes of cereal and beans, or cereal and meat or fish. Add a few drops of oil to the food, if possible.
   - Give fresh fruit juices or bananas to provide potassium.
   - Offer food every 3 or 4 hours (6 times a day) or more often for very young children.
   - Encourage the child to eat as much as he or she wants.
   - Cook and mash or grind food well so that it will be easier to digest.
   - After the diarrhoea stops, give one extra meal each day for a week, or until the child has regained normal weight.

3. TAKE YOUR CHILD TO THE HEALTH WORKER IF THE CHILD HAS ANY OF THE FOLLOWING:
   - passes many stools
   - is very thirsty
   - has sunken eyes

   } These three signs suggest your child is dehydrated.
   - has a fever
   - does not eat or drink normally
   - seems not to be getting better

Teach the mother how to use ORS (oral rehydration salts) solution at home, if:

- The mother cannot come back if the diarrhoea gets worse,
- It is national policy to give ORS to all children who see a health worker for diarrhoea treatment, or
- Her child has been on Plan B, to prevent dehydration from coming back (see page 143)

SHOW HER HOW TO MIX AND GIVE ORS

SHOW HER HOW MUCH TO GIVE
- 50-100 ml (¼ to ½ large cup) of ORS solution after each stool for a child less than 2 years old.
- 100-200 ml (½ to 1 cup) for older children.
- Adults should drink as much as they want.

TELL HER, IF THE CHILD VOMITS, WAIT 10 MINUTES. Then continue giving the solution but more slowly – a spoonful every 2–3 minutes.

GIVE HER ENOUGH PACKETS FOR 2 DAYS

Note: While a child is getting ORS, he or she should be given breast milk or dilute milk feeds and should be offered food. Food-based liquids or a salt and sugar solution should *NOT* be given in addition to ORS.

Explain how she can prevent diarrhoea by:

Giving only breast milk for the first 4-6 months and continuing to breast-feed for at least the first year.

Introducing clean, nutritious weaning foods at 4-6 months.

Giving her child freshly prepared and well-cooked food and clean drinking-water.

Having all family members wash their hands with soap after defecating, and before eating or preparing food.

Having all family members use a latrine.

Quickly disposing of the stool of a young child by putting it into a latrine or by burying it.

Some things to find out and discuss about treating diarrhoea at home

1. What do people in your community do to treat diarrhoea?
   (To answer this question you can ask people in the community, and share your ideas with other trainees.)

2. Now that you have learned some things about how people treat diarrhoea at home, which of these things seem good to you? Which are not good?

3. What local foods and drinks would you suggest for the treatment of diarrhoea in your community?

4. Are there other people or educational programmes (such as school programmes, radio talks, etc.) that would help to reach families with information about the home treatment of diarrhoea?

From asking questions in the community you should be able to fill in (below) some answers to Questions 1–4.

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Discuss your answers with the trainer, other trainees and people in the community.

How to decide when a child with diarrhoea needs urgent care

To decide whether a child needs urgent care you should: ask, look, feel and weigh.

The chart below, 'How to assess your patient', gives a list of questions to ask, things to look for, and conditions to feel for. It also reminds you to weigh a child with diarrhoea, and to take the child's temperature.

If the child has two or more of the signs in Column B, the child is dehydrated and must be treated according to Treatment Plan B on page 143.

If the child has two or more of the signs listed in Column C, the child is severely dehydrated, and is in danger. He or she must be treated according to Treatment Plan C on page 144.

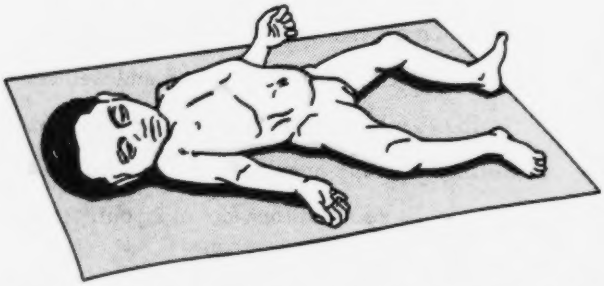


Fig. 60 This child is sleepy and unwell. She does not have any tears, her eyes are sunken and her mouth is dry. These are some of the signs of dehydration — this child needs special care.

HOW TO ASSESS YOUR PATIENT

		FOR DEHYDRATION			FOR OTHER PROBLEMS
		A	B	C	
1 ASK ABOUT	DIARRHOEA	Less than 4 liquid stools per day	4 to 10 liquid stools per day	More than 10 liquid stools per day	Longer than 14 days duration Blood in the stool
	VOMITING	None or a small amount	Some	Very frequent	
	THIRST	Normal	Greater than normal	Unable to drink	
	URINE	Normal	A small amount, dark	No urine for 6 hours	
2 LOOK AT	CONDITION	Well, alert	Unwell, sleepy or irritable	Very sleepy, unconscious, floppy or having fits	Severe undernutrition
	TEARS	Present	Absent	Absent	
	EYES	Normal	Sunken	Very dry and sunken	
	MOUTH and TONGUE	Wet	Dry	Very dry	
	BREATHING	Normal	Faster than normal	Very fast and deep	
3 FEEL	SKIN	A pinch goes back quickly	A pinch goes back slowly	A pinch goes back very slowly	
	PULSE	Normal	Faster than normal	Very fast, weak or you cannot feel it	
	FONTANELLE (in infants)	Normal	Sunken	Very sunken	
4 TAKE TEMPERATURE					Fever – 38.5°C (or 101°F) or greater
5 WEIGH IF POSSIBLE		Loss of less than 25 grams for each kilogram of weight	Loss of 25-100 grams for each kilogram of weight	Loss of more than 100 grams for each kilogram of weight.	
6 DECIDE		The patient has no signs of **dehydration** **Use Plan A**	If the patient has 2 or more of these signs, he has **some dehydration** **Use Plan B**	If the patient has 2 or more of these danger signs, he has **severe dehydration** **Use Plan C**	

IF YOUR PATIENT HAS:	THEN:
Blood in the stool and diarrhoea for less than 14 days	Treat with an appropriate oral antibiotic for shigella dysentery If the child is also – dehydrated, – severely undernourished, or – less than 1 year of age, reassess the child's progress in 24 - 48 hours. For the severely undernourished child, also refer for treatment of severe undernutrition
Diarrhoea for longer than 14 days with or without blood	Continue feeding and refer for treatment
Severe undernutrition	
Fever – 38.5°C (or 101°F) or greater	Show the mother how to cool the child with a wet cloth and fanning. Look for and treat other causes (for example, pneumonia, malaria)

Treatment Plan B: To treat dehydration

1. Amount of ORS solution to give in first 4 to 6 hours

<table>
<tr><td colspan="2">Patient's age[1]</td><td colspan="6">2 4 6 8 10 12 18 2 3 4 6 8 15 adult
months → ← years →</td></tr>
<tr><td colspan="2">Patient's weight in kilograms</td><td colspan="6">3 5 7 9 11 13 15 20 30 40 50</td></tr>
<tr><td rowspan="2">Give this much solution for 4-6 hours</td><td>in ml:</td><td>200-400</td><td>400-600</td><td>600-800</td><td>800-1000</td><td>1000-2000</td><td>2000-4000</td></tr>
<tr><td>in local unit of measure</td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
</table>

[1] Use the patient's age only when you do not know the weight.

NOTE: ENCOURAGE THE MOTHER TO CONTINUE BREAST-FEEDING.

If the patient wants more ORS, give more.
If the eyelids become puffy, stop ORS and give other fluids. If diarrhoea continues, use ORS again when the puffiness is gone.
If the child vomits, wait 10 minutes and then continue giving ORS, but more slowly.

2. If the mother can remain at the health centre

- Show her how much solution to give her child.
- Show her how to give it – a spoonful every 1 to 2 minutes.
- Check from time to time to see if she has problems.

3. After 4 to 6 hours, reassess the child using the assessment chart. Then choose the suitable treatment plan.

NOTE: If a child will continue on Plan B, tell the mother to offer small amounts of food.

If a child is under 12 months, tell the mother to:
- continue breast-feeding or
- if she does not breast-feed, give 100-200 ml of clean water before continuing ORS.

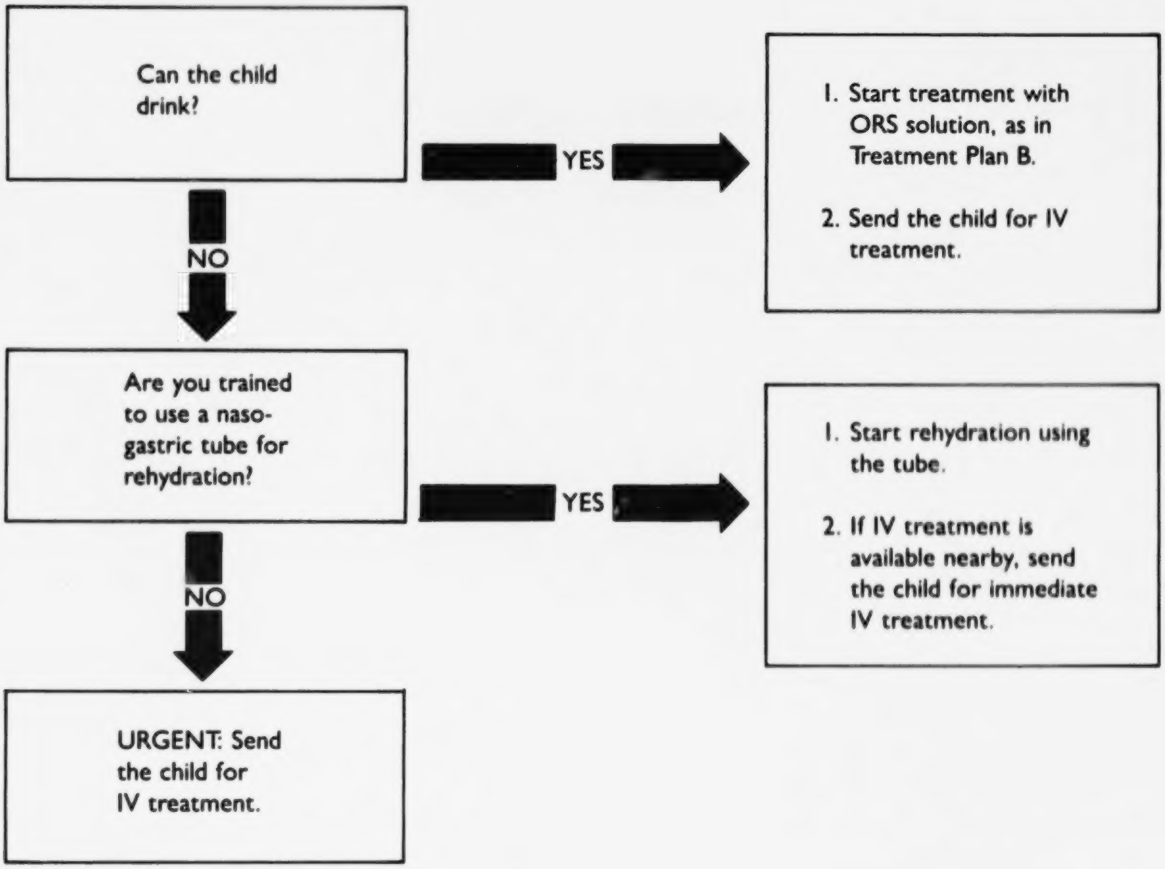
4. If the mother must leave any time before completing Treatment Plan B

- Give her enough ORS packets for 2 days and show her how to prepare the fluid.
- Show her how much ORS to give to finish the 4-6 hour treatment at home.
- Tell her to give the child as much ORS and other fluids as he or she wants after the 4-6 hour treatment is finished.
- Tell her to offer the child small amounts of food every 3-4 hours.
- Tell her to bring the child back to the health worker if the child has any of the following:
  - — passes many stools
  - — is very thirsty
  - — has sunken eyes

  } These three signs suggest the child is dehydrated.
  - — has a fever
  - — does not eat or drink normally
  - — seems not to be getting better.

Treatment Plan C: To treat severe dehydration quickly

Follow the arrows. If the answer to the question is 'yes', go across. If it is 'no', go down.


Can the child drink?
YES
1. Start treatment with ORS solution, as in Treatment Plan B.
2. Send the child for IV treatment.
NO
Are you trained to use a naso-gastric tube for rehydration?
YES
1. Start rehydration using the tube.
2. If IV treatment is available nearby, send the child for immediate IV treatment.
NO
URGENT: Send the child for IV treatment.

NOTE: If the child is above 2 years of age and cholera is known to be currently occurring in your area, suspect cholera and give an appropriate oral antibiotic once the child is alert.

7E Nutrition and infections

You can find out useful information about infections in the community. The information will help you as a community health worker to decide what plans to make to help protect children from infections.

Some things to find out are:

Which infectious diseases occur in the community, and what are their local names?

At what ages do children get these diseases?

At what time (season) of the year are these diseases common?

Which diseases seem to cause death most often?

How do people treat the diseases?

Are there special foods or ways of feeding that are used for people with the diseases?

After collecting this information by observation and asking questions in the community, discuss it with the other trainees. You can then think about ways to plan activities in the community to protect children and others from infections and disease.

Questions

1. How do children and adults get infections?

2. What can you do to help parents protect their children against infections?

3. Why is feeding a child who has a disease like measles so important?

Nutrition Learning Package 4 — *Feeding young children* — contains information that will help you answer these questions.

Answers

1. Children and adults can get germs that cause infections and disease in many different ways. Germs are so small that we cannot see them. They are all around us, for example in air and water, and on the skin. Some germs do not harm us, but others are harmful.

   If a person with tuberculosis, whooping cough or measles coughs, the germs go into the air. When other people breathe this air, they may also get the disease.

   If a person has diarrhoea, many germs are passed in the stools. If the stool goes into a source of water, and later someone drinks water from the same source, the person who drinks this water may get diarrhoea. Or the germs that cause diarrhoea may get onto a person's hands. If the person does not wash his or her hands after passing stools and before preparing or eating food, the germs can infect the food. Then the food may cause diarrhoea in people who eat it.

2. There are two ways that parents can help their children to be protected against diseases and infections.

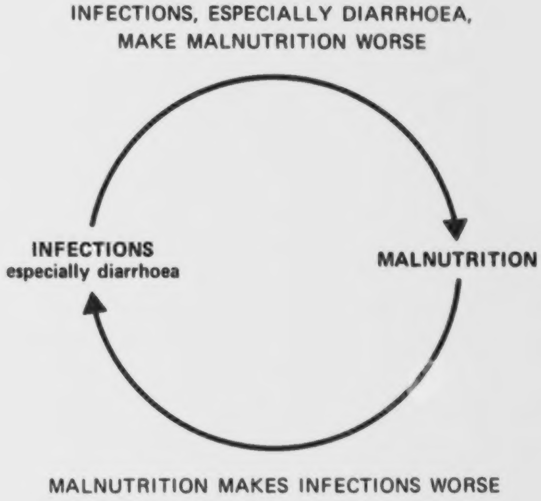
   First, the child should be given enough of the right kinds of foods to be strong and healthy. The human body has ways of fighting germs and infections. If a child is healthy, strong and well fed, his or her body can fight germs better than if the child is weak and thin.

   Second, the child should be taken to the health centre regularly, where he or she will be given immunizations. An immunization helps the child's body to fight the germs that cause some infections and diseases. Immunizations are often given in the form of an injection.

3. Different diseases and infections affect the nutrition of a child.

   - If a child vomits, for example, he or she is losing fluids and nourishment.
   - If a child has a cough or a sore mouth, as in measles, he or she may not want to eat.
   - If the child has a fever, his or her body uses more energy. Because little food is taken in, the child's body will use its own tissues for energy. This makes the child grow thin, weak, and malnourished.

Sometimes parents do not feed a child who is ill. They think that because the child is vomiting or has diarrhoea he or she should not eat. This is very dangerous. Children who are not fed when they have diarrhoea, measles or other infections will begin to lose weight. They will become weak, thin, and malnourished. A weak, thin and malnourished child will get infections more easily. So you can see there is an important relationship between nutrition and infections. A sick child needs food.


INFECTIONS, ESPECIALLY DIARRHOEA, MAKE MALNUTRITION WORSE
INFECTIONS
especially diarrhoea
MALNUTRITION
MALNUTRITION MAKES INFECTIONS WORSE

WHO 881116

Nutrition Learning Package 8

COMMUNICATING NUTRITION MESSAGES

THIS LEARNING PACKAGE SUPPORTS
MODULE 8: CONVEYING NUTRITION MESSAGES TO THE COMMUNITY
In: *Guidelines for training community health workers in nutrition,*
WHO, 1986

Contents

This Nutrition Learning Package contains materials for use in training community health workers to be able to:

- Communicate with people in the community who can work with them to improve nutrition.
- Work with community members to develop appropriate nutrition messages.
- Design and pretest nutrition messages.
- Communicate nutrition messages simply and convincingly.

Materials

8A Rules of good communication.
8B Communications in the village.
8C Ideas and methods for trainers teaching nutrition.
8D Priority messages.
8E Pretesting.

How to use the materials in **Nutrition Learning Package 8**

8A Rules of good communication

This information sheet for trainees summarizes some rules for good communication, and some things that prevent communication. Use it as a follow up to a lecture or discussion of the topic.

8B Communications in the village

These exercises help trainees practise the principles learned using Material 8A. Read the four exercises through carefully before you use them. Each exercise represents a different health problem. You may want to make up your own problems to suit your situation, or to adapt people's names, or what they say.

Trainees role-play how the different people in the community act in the situations given, following the directions carefully. After the role-play trainees discuss what happened. These exercises will help trainees to understand how people communicate what they think and feel, and therefore how to listen and speak to people effectively.

8C Ideas and methods for trainers teaching nutrition

This material reviews ways to present information. You can use the methods to present information to trainees, and trainees can use the methods to give information to people in the community. Discuss with the trainees which of the ten methods you will use, and which ones trainees should use. If you, or the trainees, decide that drama or play-acting is a good method, there may be people in your community who are skilled in drama. You could ask them to help with this session. Many communities have good local actors and story-tellers.

8D Priority messages

This activity will help trainees decide which are the most important messages they want to communicate to people in the community. These are sometimes called 'priority' messages. The activity can be done many times during training. It can be done at the end of each special topic, such as breast-feeding and feeding young children. The more often you do this activity, the more comfortable you and the trainees will feel about it. The easier it will be for you to decide on priority messages.

8E Pretesting

You and the trainees may decide to make some materials to use in communicating nutrition messages to people in the community. You should always pretest materials before you use them with people in the community to make sure that they are interesting and easy to understand. Pretesting is especially important before you make copies of materials or have them printed.

This activity helps you and the trainees plan a meeting with some community people to pretest materials.

This activity is very important, but needs practice. New community health workers may find it difficult to work with people in this way, but once they have gained experience and feel comfortable with pretesting, it is a very useful activity.

Good resources on pretesting are available (see, for example, *Resource list for training* on page 23). You may want to study this topic before presenting it to the trainees.

8A Rules of good communication

To communicate well with people you must:

- listen
- share ideas
- receive ideas
- understand behaviour
- share, give and receive information.

The skills needed to work with other people include:

- listening to what people say
- understanding people's problems
- sharing and changing your ideas and the ideas of other people
- supporting and helping people
- finding ways to solve problems together
- learning from mistakes
- learning from each other.

Note: These skills can be learned. They are the tools with which a community health worker can do his or her job. These skills are best learned by understanding the problems that other people in the community face.

Good communication is difficult because people do not always agree on:

- what a health problem is
- what to do about a health problem
- what should be done first
- who should do what
- how or when to tackle the problem
- how much money, time and effort should be spent on the problem.

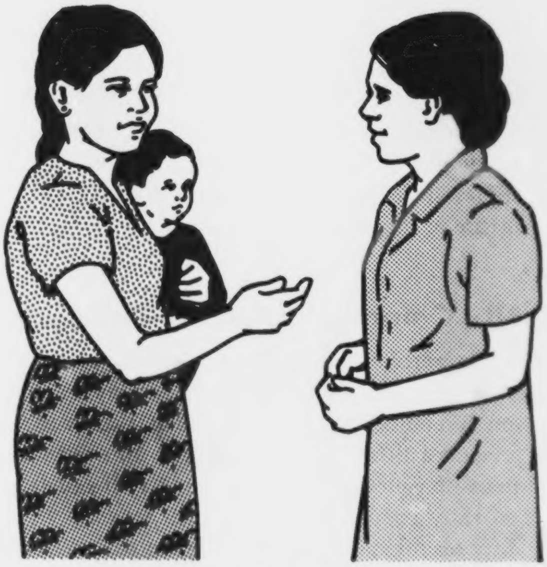


Fig. 61 This community health worker is communicating well. She is listening very carefully to what the mother is saying.

8B Communications in the village

The following exercises will help you to develop skills in listening to, and speaking to, different people in the village. You will learn how to:

- listen with care to what people are saying
- observe the ideas and beliefs that are shown by what people say and do.

1. You will be split into groups of eight. Each member of the group will play the role of one of the following people:

   a schoolteacher
   a child, aged nine
   a village leader
   a community health worker
   a mother
   a traditional healer
   a traditional birth attendant
   a religious leader

   If these names are not used or such people do not exist in your community, change them to be suitable for your situation.

2. To act out the role-play you will sit or stand in front of the group wearing a name tag to say what role you are playing. You should try to think and act like the person you are supposed to be.

3. A different group of eight trainees will be selected for each exercise.

Exercise 1 – Safe disposal of human waste (excreta)

The setting

A community health worker has called a meeting to discuss the best way to dispose of human excreta. The following people contribute to the discussion.

The role-play

The child says: 'I do it wherever and whenever I need.'

The schoolteacher says: 'There is a right time and a right place for disposal of excreta.'

The village leader says: 'Old people use different places from young people.'

The mother says: 'I have tried to get the children to excrete further away from the house.'

The traditional healer says: 'There are traditional places.'

The traditional birth attendant says: 'Some places are safer for disposal of excreta than others.'

The religious leader says: 'Regular opening of the bowels is important.'

The community health worker says: 'Latrines are safest. Excreta must be disposed of at a distance from water sources and away from people's homes.'

After these comments have been read, you should continue the discussion for about 10 minutes. Continue to play the role of the person whose name you wear.

After the discussion think about what the group has learned about the ideas, knowledge and behaviour of the different people represented in the role-play.

Exercise 2 – Breast-feeding

A different group of trainees now take on the roles.

The setting

At the end of a community meeting about feeding the children in the community the conversation naturally moves on to a discussion of breast-feeding.

The role-play

The village leader says: 'Mothers have always breast-fed their babies.'

The schoolteacher says: 'Breast milk is better than other milk.'

The child says: 'Breast-feeding takes too much of a mother's time.'

The mother says: 'They gave me three free tins of milk at the clinic. Bottle-feeding must be good.'

The traditional birth attendant says: 'As long as a mother breast-feeds, there is less likelihood of another pregnancy.'

The religious leader says: 'Our religion says breast-feeding is the natural way.'

The traditional healer says: 'Babies become ill if they are not breast-fed.'

The community health worker says: 'Bottle-feeding is dangerous and dirty. It may cause diarrhoea. Breast milk is clean, cheap, and always available when needed.'

After these comments have been read, continue the discussion for about 10 minutes. Continue to play the role of the person whose name you wear.

After the discussion think about what the group has learned about the ideas, knowledge and behaviour of the different people represented in the role-play.

Exercise 3 – Growing foods

A different group of trainees now take on the roles, or the roles are swapped within the same group.

The setting

A group of people have met at the market. They start to discuss the problems of producing food.

The role-play

The traditional healer says: 'I often get paid with food. It is cheaper for the people and better for me.'

The mother says: 'I want my family to start growing food but I have no seeds.'

The child says: 'I will soon be able to bring home seeds from the school garden.'

The village leader says: 'Children cannot grow food. They should rely on the wisdom of their elders.'

The schoolteacher says: 'I teach children how to grow food and look after chickens.'

The traditional birth attendant says: 'It is a good idea to do things for ourselves. That is how I learned to deliver babies.'

The religious leader says: 'You can help yourself, but you also need God's help.'

The community health worker says: 'If we help ourselves to grow food, we will also be helping ourselves to develop a healthy community.'

Continue the discussion for about 10 minutes, playing the role of the person whose name you are wearing.

After the discussion think about what your group has learned about the ideas, knowledge and behaviour of the different people represented in the role-play.

Exercise 4 – Immunization

A different group of trainees now take on the roles, or the roles are swapped within the same group.

The setting

A schoolteacher has organized a community meeting about immunization, and has asked the community health worker to come along.

The role-play

The traditional birth attendant says: 'I have seen that vaccinated children get fewer diseases than unvaccinated children.'

The religious leader says: 'Disease is a punishment for wrong-doing. Observing religious commandments is the best way to prevent illness.'

The traditional healer asks: 'How can a needle in your arm now prevent illness in your body in the future?'

The mother says: 'I am not sure if this is safe, or if it prevents illness.'

The village leader says: 'I was never immunized. I have never been ill. I am very old and still strong.'

The child says: 'I am glad we live too far away for me to be immunized.'

The schoolteacher says: 'I am sorry to see so many children with one weak, small leg that they cannot use. I did not see this in my last school where most children were immunized.'

The community health worker says: 'Immunization is safe, and prevents serious illness and death.'

Continue the discussion for about 10 minutes playing the role of the person whose name you are wearing.

After the discussion think about what your group has learned about the ideas, knowledge and behaviour of the different people represented in the role-play.

8C Ideas and methods for trainers teaching nutrition

Many training programmes still teach health workers to give talks, or lectures, on nutrition to mothers, children and other community people. The lesson plans and teaching materials to go with these talks have often been designed by outsiders to the community in which they are given. The health worker may be encouraged to use questions and answers, flip charts or posters, but the information and advice still travel mostly one way – that is from the unseen expert who prepared the materials, through the health worker, to the listeners.

The results from such prepackaged nutrition talks are often disappointing because for many reasons (shown in Fig. 62) people may not accept the information.

If people are to learn about how and what to eat for good health, the educational approach should deal with real problems in a real way. It should be an 'active' process in which community health workers and people from the community learn and explore new possibilities together.

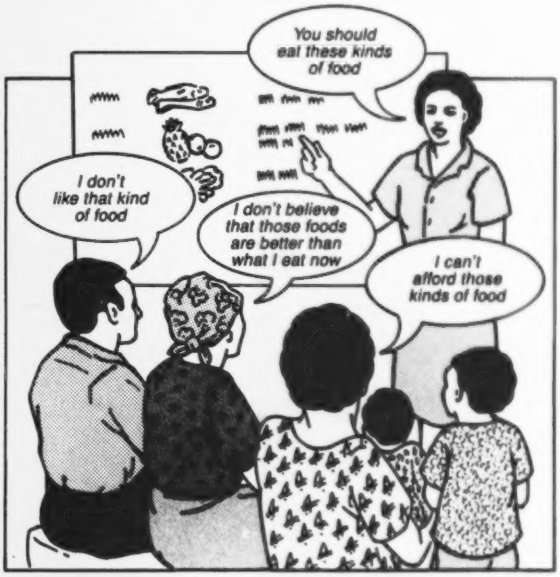

You should eat these kinds of food
I don't like that kind of food
I don't believe that those foods are better than what I eat now
I can't afford those kinds of food

Fig. 62 This health worker is giving a lecture on nutrition. The audience is listening, but for various reasons not all the people accept what the health worker is saying. The man on the left doesn't like the food the health worker is recommending. The woman in the middle doesn't believe everything the health worker is saying. The woman on the right cannot afford the foods the health worker is recommending

Some ways to teach and learn about nutrition

The methods can be used by health workers, parents, schoolchildren and other people. Choose the methods that are most like the methods people already use to teach each other in the community; for example, choose a method that is similar to the way mothers teach their children.

Stories

Stories can help people to think about their problems and look for solutions. They are used best in small groups, with the group taking part in story-telling, or discussing the stories afterwards. Drawings can help to illustrate the stories, and can encourage discussions.

Games

You can make up games with nutritional messages. These are best if they involve problem-solving and are based on decisions, rather than on luck.

Demonstrations

You can demonstrate how to prepare nutritious meals. Demonstrations can be carried out in the nutrition centre or in people's homes. Let mothers prepare the food themselves and help teach others to prepare the food. Use foods that are available locally, for example ones that can be bought in the market or grown in family gardens.

Regular weighing of children

Children under five years should be weighed monthly to help spot problems early. Their weights should be recorded on growth charts (see Nutrition Learning Package 2). The time that the mothers spend at the health centre while their children are being weighed can be very useful for passing on nutritional information.

Role-playing and drama

Theatre is excellent for getting people to think about ideas that require changes in the usual way of doing things. Everyone can take part, or a group of villagers or health workers can perform. Follow up the performance with a discussion.

Puppet shows

These can be useful in some communities. It is best if people from the community make puppets, and conduct the show themselves.

Work in small groups

Many subjects can be covered with small groups of mothers, fathers, young people, etc. For example, a talk about different foods can be brought alive if everyone in the group brings real foods to the group meeting. That way you will be sure to teach about foods that are available locally. It may, however, be difficult for poor families to bring foods. Can the group find a way to get over this problem?

Gardening and agricultural projects

The best way to learn about these is to do them. For example, family or school gardens could be planted, or storage bins could be made for grain.

Slides and films

Films and slides should be used only if health workers will have access to projectors and electricity in their communities.

Community practice and experience

As much as possible, community health workers should have a chance during their training to practise all these different activities and teaching methods with people in a real village or community.

Notes on using drama

- **Home-made, open-ended drama can be very useful in communities where it is part of the tradition.** People who present a play or skit will learn twice as much if they also take part in creating or writing it. The story can be developed from the actual ideas and experiences of the participants. The group must invent the story and work out how to present local problems in a convincing way. This helps them to develop skills in planning, thinking, problem-solving, organizing, and communicating. All these extra benefits are lost when trainees simply memorize a script written by someone else.

- **Encourage people to use their own words.** Speaking in public is not easy for many community health workers or villagers. Often poor people are used to remaining silent in village meetings, while a few people do the talking and make the decisions. At first, trainee health workers may be embarrassed to speak or role-play in front of a group. They may be too shy to say things in their own words, and will often prefer to memorize the words of someone else. This takes more work, but seems safer. They feel less exposed.

  However, the ability to stand up and state your own thoughts with confidence is an extremely important skill. Encourage trainee health workers to use their own words in role-plays, rather than simply repeat lines they have memorized.

  But go slowly. Help people gain confidence little by little. Start with role-plays in the classroom, or with a small group in which everyone takes part. This way there is no audience. Everyone is an actor and a member of the audience at the same time. As the trainees become more confident, they can begin to do presentations for larger groups.

  Taking part in role-playing and community theatre helps people gain confidence. It gives them the courage and skills to speak their thoughts.

- **Involve mothers and children.** Be sure the drama is relevant to them. Health workers may be able to interest children and their mothers in putting on skits or puppet shows for the community. People are more likely to take part if the subject of the drama is important to them.

- **Entertainment is more powerful than preaching.** If theatre is to reach many people, especially those who are the most difficult to reach, it needs to be entertaining. Theatre can be used for health education. It can help get people thinking about specific problems and possibilities for action. It can contain a strong health message. But if it is to hold the interest of an audience, and convince people to come back for more, care must be taken not to preach. Few people enjoy being told what they should or should not do, especially when they have come to have a good time.

  To be effective, build the message into the story. The positive or negative results of the actors' actions can be made obvious, but the people in the audience must be free to draw their own conclusions. Respect their judgement and their intelligence.

- **Leave time for discussion afterwards.** Whether it is a role-play in the classroom or a theatre presentation in the village, a discussion afterwards will help people relate personally to what they have seen. A follow-up discussion can help turn acting on the stage into action in the community. Follow-up discussions get people personally involved.

8D Priority messages

Setting:
A training session for community health workers on developing materials.

Time:
Approximately 2 hours. You may need to use more or less time depending on the experience the trainees have.

Purpose:
To assist community health workers in the development of priority messages.

Preparation:
Provide large sheets of paper and marker pens for each group of trainees.

Procedure:

1. Ask the group to list the community health and nutrition problems that have been identified through previous activities (see Nutrition Learning Package 1 – *Getting to know the community).* Or prepare a list from previous discussions or from individual interviews with the trainee community health workers.
2. Select one problem and discuss how it might be solved. Then ask:
   - 'Can this problem be solved by a simple change in behaviour?'
   - 'Can it be solved with a few additional resources?'

   If the answer to both of these questions is yes, a priority message can be useful in helping to solve the problem.
3. Ask the trainees to think of messages about the problem that would motivate villagers to change their behaviour. List all of the suggested messages on a sheet of paper or on a blackboard.
4. Ask trainees which of the messages are likely to be effective. If necessary, combine or change the listed messages to produce a good example of a priority message.
5. Select another problem, and discuss how it might be solved. Any problem that requires resources that are difficult to obtain, or more than a simple change in behaviour will probably not be helped by a priority message.
6. Now ask the trainees what makes an effective priority message. List the suggestions. Examples might include:
   - It is short.
   - It provides enough information.
   - It gives a suggestion for change.
   - It is easy to remember.
7. Write a priority message.
8. Divide the trainees into small groups. Give each group 5 to 10 community problems from the list. Ask each group to decide on priority messages that could help solve these problems.
9. After about 45 minutes ask the groups to report back on the priority messages they have created. Review the suggestions listed in Point 6, of what makes an effective priority message. Ask whether, in the light of their experience in developing priority messages, any additions or changes are needed to the list.

Some examples of priority messages are:

- 'Weight gain is healthy. Weigh your child each month.'
- 'Breast milk from the mother is best for the baby.'
- 'A source of nutrition is in front of your door. Use your yard to grow vegetables.'
- 'Keep our children's bodies clean to prevent illness.'

Note: This exercise can also be adapted so that people in the community can develop their own priority messages. For example, during a meeting with community members to discover the health and nutrition problems in the community, the health worker can ask the people how they would express, in their own words, a message to help get rid of the problem or change the behaviour that creates the problem.

8E Pretesting

Through pretesting, materials and messages are modified to be more useful and effective in the community for which they are made.

Setting:

A meeting with members of the communities near the training site to pretest an illustrated story that contains a nutrition message.

Time:

2–3 hours.

Purpose:

To determine whether newly developed materials and messages are understood by, and capture the interest of, the villagers.

Preparation:

Arrange a time and place to hold the meeting, making sure that the time and place are convenient for the local people.

Pretesting can be carried out by teams of trainee community health workers. The team will probably have to meet together several times before the pretesting meeting, to plan the meeting and develop the materials.

First the team will make up the story, making sure that the characters are like people in the local community, and that the message about nutrition is clear. The team can ask a local artist to help with the illustrations.

Then the team decides who will do what on the day of the meeting. For example, one member of the team will need to present the story, at least one will be needed to lead a discussion, and the others will observe and remember what is said.

The team should discuss what they will be looking for as they are doing the pretesting. Some questions to ask during the pretesting are:

- Do the people understand the words? If not, which ones don't they understand?
- Is the story interesting to the people? If not, why not?
- Do the people pick up the message in the story?
- Does the story stimulate participation by people in the community?
- Is there a sharing of ideas by the people? If not, how can sharing be encouraged?
- Are the drawings understood by the people?
- Do the pictures represent their situation? If not, what changes need to be made?

The team should practise holding a pretesting meeting in front of other teams before going to the community meeting.

Procedure:

1. At the community meeting, explain that you will be trying out some new materials you are developing.
2. Introduce the materials by explaining what your team will be doing, i.e. telling a story and showing pictures.
3. Ask one of the team members to present the story. During this time, other team members will observe the reactions of the community members.
4. After the presentation is finished, ask the community members what they liked about the story, whether they understood the pictures, and what comments they would like to make.
5. When the team members return to the training site, discuss the community meeting. Consider the points that were noticed by the observers. For each point, list what changes are needed in the material.
6. Modify the material with the help of the artist.

Notes for trainers

The community visit for pretesting materials will usually lead to some changes in the materials, as they are being developed. The process of pretesting the materials will continue when the community health workers return to their own communities and use the materials there.

It takes time for community health workers or trainees to get used to new ways of working with the community, especially in feeling comfortable with approaches like pretesting, where community members participate. At first they may feel out of control, and may fall back into a lecturing role even if the materials being used do not require this. Trainers will need to encourage community health workers to practise the new approaches until they feel comfortable with them.

Nutrition Learning Package 9
SOLVING NUTRITIONAL PROBLEMS

THIS LEARNING PACKAGE SUPPORTS
MODULE 9: SOLVING NUTRITIONAL PROBLEMS IN THE COMMUNITY
In: *Guidelines for training community health workers in nutrition,*
WHO, 1986

Contents

This Nutrition Learning Package contains materials for use in training community health workers to be able to:

- Understand that nutrition problems have many causes and usually require several activities to solve them.
- Work with people to identify the situations causing nutrition problems and plan tasks and activities to change or prevent them.
- Decide which problems are most important and work with the community to find solutions.

Materials

9A Solving nutrition problems in the community.

9B Discussion starter.

9C Working with others.

9D Choosing the problem to work on first.

9E Overcoming barriers.

How to use the materials in **Nutrition Learning Package 9**

9A Solving nutrition problems in the community

This information sheet summarizes how to approach nutrition problems in a step-by-step way. Trainees will have carried out most of the steps outlined here as part of their training. For example, Step 1 was practised using Material 5B – *Food habits chart*. Using this material trainees learned what mothers eat during pregnancy.

Go through all the steps with trainees, and identify other activities carried out during training that illustrate the steps in problem-solving.

9B Discussion-starter

Trainees can use this activity in a community meeting to encourage discussion of a nutrition or health problem. Read the procedure carefully. Then practise the activity with the group of trainees. You may want to read the play, and handle the discussion yourself or you can get the trainees to do it.

Then encourage trainees to make up stories and plays from their own experience, and ask a trainee to volunteer to carry out the exercise with his or her own play. If possible ask all trainees to practise the activity in the classroom. Then trainees can carry out the activity in the community.

9C Working with others

This activity helps trainees learn how people can work together to solve a problem. Follow the directions using one group to role-play while the other group observes. Then change groups. Trainees can use this activity when helping community people learn about working together. Get trainees to try using the game in the community during training if possible.

9D Choosing which problem to work on first

This is a similar activity to 9C and is carried out in the same way. Hold group discussions after both of these activities to help trainees summarize what they have learned about working in a committeee or small group.

9E Overcoming barriers

Use the first page of this handout to stimulate trainees to think of the barriers a community health worker must overcome to do a good job. After group discussion, use page 169 to summarize the barriers, and the actions a community health worker can take to overcome them.

Pages 169 and 170 can be used as work sheets. Remove the words in the 'Actions' column and boxes and give trainees copies of the sheets. Ask trainees to fill in their ideas. Then hold a group discussion on actions to overcome barriers using the trainees' answers as well as the answers given in the 'Actions' column and boxes.

9A Solving nutrition problems in the community

To learn about nutritional problems in your community, and what to do about them, it makes sense to use a problem-solving approach. You will be better prepared to put what you have learned during your training into practice if you learn by actually working with people and their problems. This means working both in the classroom and in the community.

Here is a list of steps that you may find useful in approaching the nutritional and food problems in your community. Although it may help to discuss the steps first, they can best be learned through practice.

Steps for approaching food problems in a community

1. Know (or get to know) the people well. Try to understand their attitudes, beliefs, traditions, and fears, especially those that involve food.
2. Try to find out how much malnutrition there is in your community, and who is most affected.

   Often children suffer most from malnutrition, followed by pregnant women and nursing mothers, and then old people. Be sure to check the nutrition of sick people. This is often a big problem because of traditional fears and beliefs about what people should or should not eat and drink when they are ill.
3. Consider which food and nutrition problems are most important – in terms of how the people feel about them (felt needs) and in terms of how much they affect people's health and well-being (real needs).
4. Look for the causes of malnutrition and other food-related problems. There is often a combination or chain of causes rather than a single cause. These causes may include people's habits and attitudes, land ownership, farming practices, water sources or shortages, storage and spoilage of food, food prices, and marketing and wages. Try to separate causes that originate within the community from those that come from outside.
5. Carefully consider the obstacles that you might meet in trying to solve specific problems. Many nutrition projects have failed because of obstacles that were not considered early enough.
6. Together with people from the community, decide which problems to attack first. Try to be sure that:
   - the people recognize the importance of the problems they choose to attack, and are interested in working together to solve them
   - the first problems chosen are fairly easy to combat, and the action taken is likely to give quick and obviously beneficial results.

9B Discussion-starter

Setting:

A community meeting or women's group meeting.

Time:

45 minutes.

Purpose:

To stimulate discussion about beliefs, views and problems among community members through the presentation of opposing points of view. In this example the opposing points of view are presented in the form of a play called 'The charm and the clinic'. Other ways to present the points of view are to tell a story or to use a role-play.

Preparation:

In creating a discussion-starter, choose a topic that people have opposing views or beliefs about, for example, how to look after a child who has diarrhoea. Create a brief story or play that shows each point of view, making it interesting to the community members. Give each point of view equal attention and importance. Select visual materials to be used with the discussion-starter, for example, cut-out figures on a flannel board, or photographs.

Procedure:

1. Present the discussion-starter to the people from the community using the selected method.
2. Divide into small groups for a discussion lasting about 20 minutes. To start the discussion, ask questions like:
   - Which point of view do you agree with?
   - What do you do in your own village?
   - What is the best way of dealing with the problem? Why?
3. Meet again in the large group to discuss the ideas of each smaller group, and to reach some conclusions about the problem.
4. After the discussion, the community health worker can discuss with community members ways in which the problem could be solved.

Note: The discussion-starter helps community health workers to gain insights on the views that community members have about nutrition, health, sanitation, and agricultural practices. This type of information can be useful for planning activities.

Sample discussion-starter: the charm and the clinic

Characters

Antonia (the mother), Luisa (the grandmother), Juan (the father), Miguelito (the child), and Pedro (a friend of the family).

Dialogue

Commentator: Antonia and Juan are very sad because their son Miguelito is sick with diarrhoea. He has a swollen belly and refuses to eat any food. At birth Miguelito was a beautiful, healthy and happy baby. Now he is thin and cries a lot. Let's find out what is happening to Miguelito. *(Antonia and Luisa are talking. Juan is standing quietly nearby.)*

Antonia: Tell me, grandmother, what is the matter with little Miguelito? Do you remember how healthy he was when he was born? Now look at him.

Luisa: Antonia, please don't worry. Surely he'll get better with the charm he wears and the tea you give him. It has helped other children get over this sickness.

Antonia: But grandmother, he still has diarrhoea and won't eat anything. I'm worried.

Luisa: He'll get better, you'll see.

Juan: *(Moving closer)* Grandma, you say that Miguelito will get better, but when? He has already been ill like this for 6 months.

Antonia: *(With a worried expression)* And I am pregnant again. How am I going to care for two children?

Commentator: Pedro, a friend of the family arrives at the house and hears their worries. *(Pedro enters and stands by the others.)*

Pedro: Antonia dear, why this sadness? Why such a worried expression?

Antonia: Haven't you noticed that Miguelito is sick? Look at his thin arms and swollen belly. I just don't know what to do.

Pedro: Don't worry. Other children have been sicker and got well.

Antonia: But how?

Pedro: In the clinic there is a nurse who can cure Miguelito and tell you how to prevent this sickness.

Luisa: But Pedro, those treatments are not better than the charm he wears and the tea he drinks.

Antonia: He hasn't got better, grandmother, so maybe I should take him to the clinic.

Commentator: *(To the community members in the audience.)* If you were Antonia, what would you do?

9C Working with others

The aim of this game is to show how different people can work together to solve a health problem. Some villagers are excreting in or near the water supply to the houses and making the water unclean.

The trainees are divided into two groups. One group plays the part of the village health committee. The health committee may include the community health worker, a teacher, a village leader, a parent, a traditional birth attendant and a religious leader. These people are having a meeting. The other group play the parts of villagers observing this meeting.

The community health worker acts as discussion leader. All members of the committee discuss the problem in the following way:

1. They identify the problem.
2. They plan activities. First they identify alternative ways of solving the problem, and then they select the best way.
3. They organize activities, deciding who will do what, and when. They also decide where and how things will be done.

The community health worker must record what different members of the committee say in the discussion.

The activity is then repeated with the other group of trainees becoming the village health committee. A different problem is selected. The committee can discuss any health problem including:

- safe water supply
- safe disposal of excreta
- breast-feeding
- growing good foods
- immunization of children
- the use of a mobile clinic
- transport difficulties
- the management of diarrhoea.

This game helps us practise working with other people. The way of discussing the problem can also be used in real life.

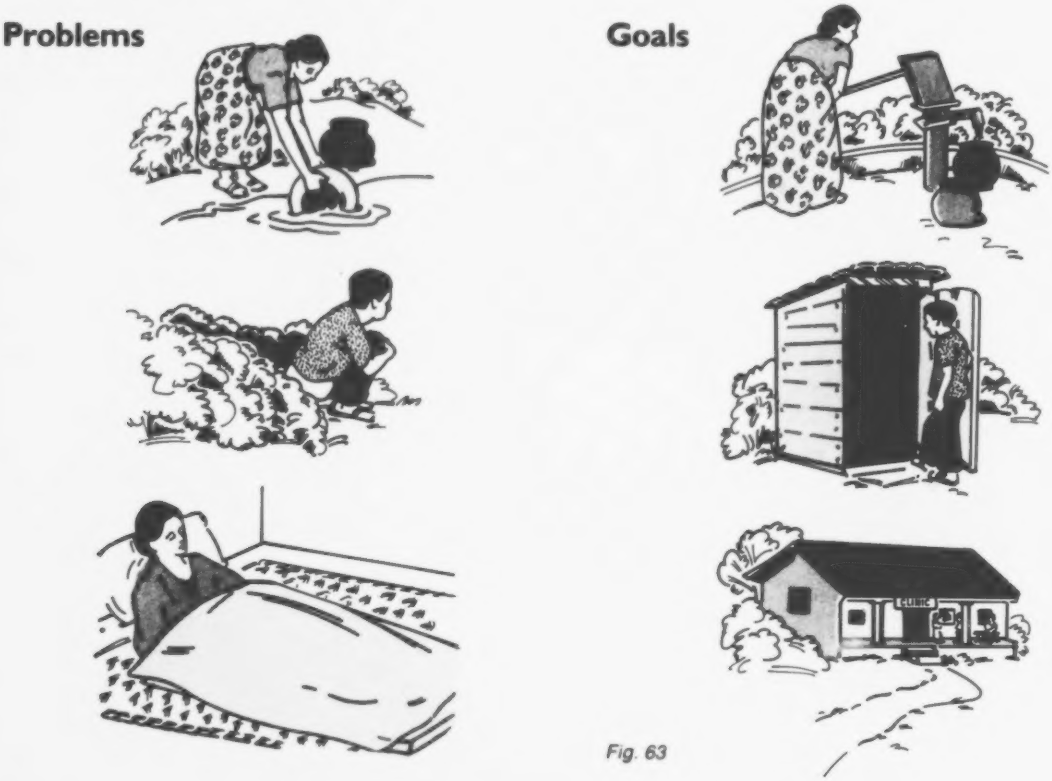


Fig. 63

9D Choosing which problem to work on first

Once we know what the health problems in the community are, and why they have developed, we need to decide which problem should be dealt with first. Each problem involves many different people, who probably feel that their problem is the most important.

The trainees are split into two groups. One group takes on the roles of a village health committee, and the rest of the trainees act as villagers who observe a committee meeting. As in Material 9C the village health committee might include a community health worker, a traditional birth attendant, a village leader, a schoolteacher, a religious leader, and a parent.

The task of the committee is to decide on what problems are most important and should be dealt with first. For example, it must decide whether the village should spend money on a bridge across the river or on a village dispensary. After the committee has made its decision the rest of the trainees will vote to agree or disagree with the decision. A general discussion can then take place.

The other group of trainees now make up a new village health committee. This committee must decide, for example, whether the village is to have a new well or new books for the primary school. After the committee has made its decision, the rest of the trainees will vote to agree or disagree, and a discussion can take place.

9E Overcoming barriers

You have already identified many of the barriers a community health worker must overcome to do a good job. Fill in the barriers to good health in the spaces below.

1. ______________________________

2. ______________________________

3. ______________________________

4. ______________________________

5. ______________________________

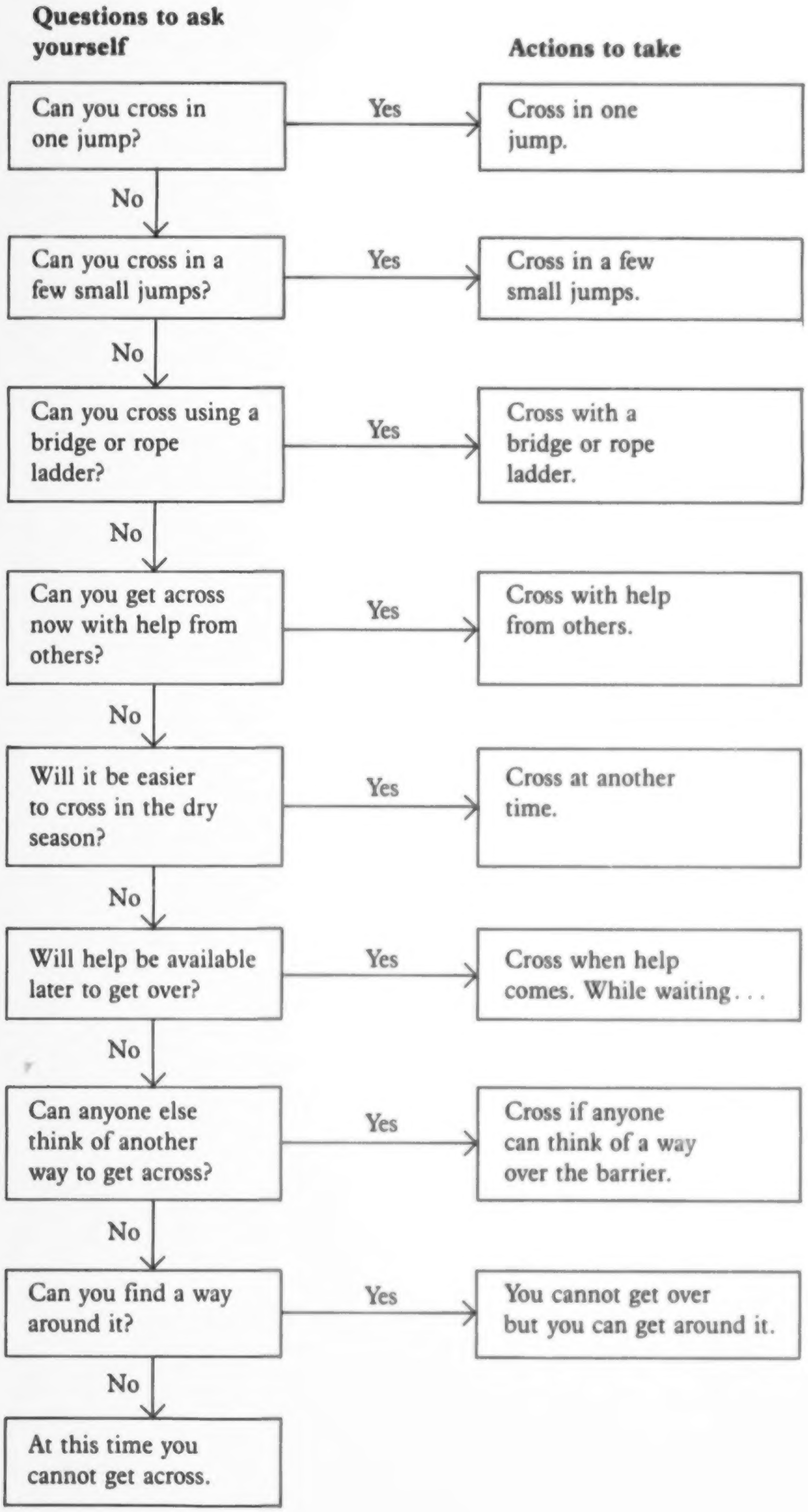
6. ______________________________

Then compare and discuss these barriers and how they may be overcome with other members of your group.

Summary of possible barriers, and how they can be overcome

Barriers to health in the community	Actions health workers can take to overcome the barriers
1. Lack of knowledge	Education. Also look for other barriers.
2. Wrong beliefs	Discuss the best ways to overcome this with the village health committee. Look for other barriers.
3. Activities that are bad for health	Examine methods of changing behaviour. Discuss these with the health committee. Look for other barriers.
4. Lack of resources	Discuss how you can get what you need. What other resources can you use? Look for other barriers.
5. Poor communication	See Material 8A – *Rules of good communication,* and Material 8B – *Communications in the village.* Look for other barriers.
6. People do not want to change their behaviour	Work with the people to find out why. Look for barriers to changes in behaviour.
	Examine ways to change behaviour. How many barriers have you identified? Which ones will you try to overcome and why?

Here a barrier, for example a stream, is used to illustrate ways of thinking about crossing barriers.



Questions to ask yourself	Actions to take
Can you cross in one jump?	Cross in one jump.
Can you cross in a few small jumps?	Cross in a few small jumps.
Can you cross using a bridge or rope ladder?	Cross with a bridge or rope ladder.
Can you get across now with help from others?	Cross with help from others.
Will it be easier to cross in the dry season?	Cross at another time.
Will help be available later to get over?	Cross when help comes. While waiting . . .
Can anyone else think of another way to get across?	Cross if anyone can think of a way over the barrier.
Can you find a way around it?	You cannot get over but you can get around it.
At this time you cannot get across.	

Other useful WHO training materials:

	Price (Sw. fr)
Guidelines for training community health workers in nutrition. 2nd ed. 1986	16.—
The community health worker. 1987	22.—
The treatment and prevention of acute diarrhoea. Practical guidelines. 1989.	11.—
Education for health. A manual on health education in primary health care. 1988.	34.—
The growth chart: a tool for use in infant and child health care. 1986.	12.—
Weaning: from breast milk to family food. 1988.	9.—
Jelliffe, D.B. & Jelliffe, E.F.P. *Dietary management of young children with acute diarrhoea. A practical manual for district programme managers.* 1989	8.—

Further information on these and other World Health Organization publications can be obtained from Distribution and Sales, World Health Organization, 1211 Geneva 27, Switzerland.

These Nutrition Learning Packages are designed to enable trainers to help trainee community health workers develop the skills they need to teach nutrition in the community. Each package contains a selection of materials, such as information sheets and ideas for role-plays and demonstrations, that can be used by trainers with trainees and also by trainees in the community. There is an introductory section for trainers and each package has detailed instructions on how to use the materials contained within it.

■ These packages support the publication: Guidelines for training community health workers in nutrition, 2nd ed. (World Health Organization, 1986).

Price: Sw. fr. 30.–

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